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Designed to improve all Classes interested in Soil Culture

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October.

"Distant woods and hills
Are full of echoes, and each sound that strikes
Upon the hollow air, lets loose their tongues.
The ripples, creeping through the matted grass,
Drip on the ear, and the far partridge drum
Rolls like low thunder. The last butterfly,
Like a winged violet floating in the meek
Pink colored sunshine, sinks his velvet feet
Within the pillar'd mullein's delicate down,
And shuts and opens his unruffled fans.
Lazily wings the crow with solemn croak
From tree-top on to tree-top. Feebly chirps
The grasshopper, and the spider's tiny clock
Ticks from his crevice."—STREET.

It has been well said that "Nature loves to die in bright colors." The frost has hastened the maturing of the leaf harvest, and the foliage, that began to look "sere and yellow" in the last month, is now all aflame with the brilliant hectic flush that heralds the closing scene. Look out upon these October woods, so sadly beautiful, and yet never more full of promise and life, than when life seems to be departing. Here stands a grand old maple, every green leaf faded, as we say, but really brightened with all the cheerful hues in the whole circle of colors—flaming scarlet, crimson, pink, violet, and yellow. It seems to have caught all the graces of the sunset hour, and like the god of day to make the last scene the most glorious of all. The pepperidge is not less brilliant, though less varied in its coloring. The deep scarlet prevails over all, and the Virginia creeper that clings to its mossy trunk and limbs, rivals the gaudy coloring of the tree it has overgrown. Wherever we see this trailing plant now, clinging to trees, climbing up the face of perpendicular rocks, or winding through deep fissures in the ledges, it wears the same rich, attractive dress. Though a common wild plant, and widely distributed, it is too generally overlooked in our ornamental grounds. Nothing can form a more beautiful contrast, at this season, than this plant trailing over walls, along with the European ivy.

Here is a hickory grove, rejoicing in the soberer tints of brown and yellow, and making all our young friends rejoice in its harvest of nuts. What boy's heart does not leap up at the goodly sight of the shellbarks, dispensing their treasures by the bushel. Here they come, a whole troop of boys and girls, with bags and baskets, to secure the nuts, which the last storm has dislodged from the loaded boughs. There the nuts lie in bright contrast to the brown shucks that enclosed them. One of them has a ladder and a pole. He will climb into the tree-top, and save the next storm the trouble of beating off the nuts for his brothers and sisters. Possibly, too, he has heard of the old proverb "A bird in the hand is worth two in the bush," and thinks that these nuts will be a great deal safer, in these days, in his bag than in the tree top.

The butternuts are close by on the hillside, stretching out their broad limbs nearer the ground, and are easily shaken and gathered. These nuts are much larger than the hickory, and, though less known in the market, are by many preferred to the shellbark. Both are improved by cultivation, and we are glad to see that our gardeners are turning their attention to them. New seedlings have been procured, improved in size and quality. It is not improbable that this field of improvement, when properly cultivated, will give us as brilliant results, as have been attained in the orchard and vineyard. It is hardly twenty years since the improvement of our native grapes has been generally attempted, and already we have numerous seedlings, promising candidates for public favor. These nuts, to our taste, are quite equal to any thing imported, and are worthy of the best efforts of our amateurs for their improvement.

The chestnut is a more magnificent tree than either of the former In the forest it attains a great hight, and is particularly valuable for its timber. In the open pasture, where it has ample room and good soil, it forms a broad expansive head, making a striking object in the landscape. The ground is now covered with its burrs, and the brown nuts that have rattled out of them, one, two, and three, from each prickly encasement.

In the southern part of our country the chincapin, or dwarf chestnut, is now shedding its nuts. The tree is not more than fifteen or twenty feet high, and the nut is smaller than the chestnut, but has the same delicious flavor. Here also the stately pecan, *Carya olivæformis*, is scattering its treasures. This tree belongs to the hickory family, and occupies the same position in the bottom lands and valleys of the rivers emptying into the Gulf of Mexico, that the shellbarks do at the North. It has the same general appearance, but grows to a larger size, and makes a broader head. The nuts are oblong, very smooth, an inch, or an inch and a half long, with thin shells. They are by most persons regarded as superior to the best shellbarks. They form an increasing article of trade in Texas and Louisiana. Amateurs in the lower Mississippi valley are beginning to raise seedlings, and to improve them by cultivation.

Now also the hazels along the walls and fences are dropping their nuts into the thick bed of leaves, and the squirrels are rivaling the boys in gathering them up for Winter stores. The filberts of commerce, twice or three times the size of the wild nut, are simply cultivated hazel nuts. They are a good example of the results of art bestowed upon these wild nut-bearing trees and shrubs. There is hardly a more promising field open to the horticulturist, than the improvement of these farinaceous nuts, with which our country abounds. By selecting seeds of the best varieties, planting them in a good, rich soil, and giving them generous cultivation, the most gratifying results may be anticipated, none the less valuable, because we shall have to wait some years for the harvest. The choicest products of nature are slow in maturing.

In all the harvests gathered at this season, we see the wisdom and benevolence of the Creator, providing for man and beast. "These wait all upon Thee, that Thou mayest give them their meat in due season." In the fruits and grains gathered in Summer, we have juice and starch preponderating to meet the wants of the animal nature, amid heat and drought. In the nuts and corn we find oil largely concentrated, preserving them from decay, and furnishing the most desirable food for the cold and dreary Winter. Instinct teaches the squirrel, and many other tribes of animals, to lay up these oily stores, either in holes in the earth, or in the hollows of decaying trees, and rocks. They have a full supply of the richest food all through the Autumn months, and their bodies are lined with a thick coat of fat, to protect them against the cold. Thus they go into Winter quarters, fully provided for all emergencies.

The same provisions meet the higher wants of the human family. Reason takes the place of instinct, builds granaries and storehouses, secure from frost and rain, wherein we hoard our Winter stores. Many of the vegetable oils pass through a refining process, and become animal products, before they are deemed fit for use. Thus, butter is a concentrated oil derived from many grasses and herbs; and mutton, beef, and pork are only different forms of supplying the same aliment for Winter use. In the great grain of our country, Indian corn, it is a noteworthy fact, that the proportion of its oil is measured by the latitude in which it grows, showing, by analysis, the most oil in Canada, where the cold is most intense, and the least in Florida, where the reign of Summer is hardly broken. The wants of our physical natures demand a larger supply of oleaginous food in cold climates, and the necessity is met. Thus there is in Nature a fulfillment of the promise of "strength according to our day."

Calendar of Operations for October, 1859.

EXPLANATIONS.—*f* indicates the *first*; *m* the *middle*; and *l* the *last* of the month.—Doubling the letters thus: *ff*, or *mm*, or *ll*, gives particular emphasis to the period indicated.—Two letters placed together, as *fm* or *ml*, signifies that the work may be done in either or in both periods indicated; thus, work marked *fm*. indicates that it is to be attended to from the *first* to the *middle* of the month.]

Farm.

October brings with it labor enough to keep the farmer steadily employed. Before the end of this month most crops will need to be harvested. The turnips are still growing, and, except at the far north, may be left in the ground until next month. Some of the corn will probably remain unhusked at the close of the month, but it is always best to secure all that is possible before cold weather and late Autumn rains set in.

We are not quite of the opinion of the farmer's widow, who wished it "would always rain on nights and Sundays, so that hired men might rest," but we think the occasional rest furnished by a rainy day to all workers on the farm—proprietor and boys as well as hired men—is a valuable recuperative of strength and vigor. Rainy days should, in part be devoted to reading and thought; still, as many persons will not improve the time thus, and as work is often pressing, it is well to provide employment for dull weather, by having under cover fence-posts and rails to be fitted, gates, or portable fence to make, muck to be manipulated with manure, grain to thresh or clean, apples to be ground into cider or prepared for drying, and, other jobs that can be attended to when field work is impracticable.

Buildings—Wait not for cold storms of Winter to compel outside repairs. The windows and shutters of the house need examining, the roof may want a few shingles, a crevice lets in the storm behind the cattle stalls of the barn, and a batten is off near the horses. Repair them early, and make provisions for sufficient shelter for all the live stock during Winter.

Beeves—Complete fattening and kill before very cold weather. It will cost less in warm weather.

Cattle—As the Fall pastures are getting short, some feeding will be needed. There is much refuse about the gardens, such as half grown turnips, and their tops, cabbage trimmings, small beets and carrots, unripe tomatoes, cucumbers, and squashes, the remnant of the corn patch, etc., which may well be fed out now, in connection with the field pumpkins.

Cellars—See that the directions of last month are attended to. Look to the drain, that no water be allowed to stand in the cellar.

Cisterns should be provided for the barn if no well or Spring water is convenient. Construct them before Winter sets in.

Corn—Select seed, f, if not already done, and trace it up as directed on page 259 last month. Cut and shock any fields still standing. Husk early and save the fodder in good condition for feeding. Avoid putting the corn in a green or wet condition into large bins or cribs, with poor ventilation. Save all the stalks and husks for Winter feeding of cattle. Hay will be scarce this year.

Draining—October is a good month for this operation, and the sooner it is now done the better, before Fall rains set in. See that open ditches on wheat and rye fields and elsewhere, are clean to carry off the surface water during Winter.

Farmers' Clubs—Now is a good time to form them, as the evenings will afford a good opportunity for weekly meetings to discuss important agricultural topics.

Forest leaves make a good manure, and also a fine bedding for all kinds of stock. Collect a large supply.

Grain—Thresh out as fast as practicable. It can be kept with less waste after it is threshed. In winnowing, take especial care to screen out cockle and other foul seeds. Save the straw for bedding or to cut and mix with ground feed for cattle and horses next Winter. It is too valuable to be wasted.

Hemp—Harvest, ff, m.

Hogs—Fatten early, as it takes less food to do it in mild weather. Grind the corn and cook both meal and vegetables before feeding. If the corn can not be ground, boil it until soft. Do not neglect their manure apartments. Make the hogs pay their way, in part.

Ice Houses—Construct now rather than leave until near the time for filling. They need cost but few dollars.

Indoor Work—While butter making is going on by day, the lengthened evenings allow of a systematic course of reading, or the younger members of the family may take up a series of studies, to very good advantage. Give your wife a sewing machine now that the Winter clothing is to be made up, and dispense with the annual services of the seamstress, who has usually been employed for weeks at least, at this season. Paring apples is an evening operation in many places. With a good machine the work may be much facilitated. The implement described last month, p. 277, improves on acquaintance and is the best we have seen.

Manures—Manufacture all that is possible, drawing upon the muck deposit, pond or canal sediment, collecting saw dust, spent tan, and forest leaves as absorbents. Turf from the road sides or headlands may also be added, especially to the compound in the hog yards, throwing in a little shelled corn to induce rooting or turning over of the mass. Continue to work the muck swamps until excessive wet drives you from the claim. We have even seen a pump rigged in a pit which one worked while the others shoveled out muck. Draw a large quantity to the buildings for bedding and an absorbent of liquids. It pays.

Paint Buildings and Fences now, rather than leave them until Spring. There is less danger of flies and dust now and the paint hardens better than in warm weather.

Plow stiff or clayey soils, m, ll, turning them up to the action of air and Winter frosts.

Potatoes—Complete digging, f, m, before frost has injured them, and store for Winter with as little exposure to sun as possible.

Poultry require a greater supply of meat or fish as their insect food diminishes. Cleanse their roosts often, and barrel the contents for home guano. Pack away a quantity of eggs in salt, or pickle in lime water for Winter use and market.

Pumpkins will need housing, f, m, or before hard frosts. By keeping them in a cool, dry place, under cover, until freezing weather sets in, and then in a *dry* cellar or other place, out of the reach of frost, pumpkins may be kept for table use until mid-winter, sometimes longer. Of course they should be handled with much care. Feed plentifully to milch cows and other stock, if the crop is large.

Roads and Lanes—Put them in good working order as recommended on another page.

Root Cellars—If there is not room to store turnips, etc., in the house or barn cellar, a good place can easily be made by digging into a side hill. Fill with roots and make a roof over, covering with several feet of earth. Good drainage is essential.

Sheep—Supply with salt, and see that their feed is sufficient. Keep the buck from them at present, except at the south. Lambs should not come in until warm settled weather in Spring.

Sugar Cane—Cut and manufacture the remaining crop as fast as may be. Let the boiling be done in the open air, or at least with a good draft circulating over the pans. Save the skimmings for vinegar.

Tools—Put away in a dry place under cover any which are no longer wanted, first cleaning and oiling, or coating steel and iron surfaces with lard and resin.

Trees—Plant for ornament and shade about the dwellings, along the avenues, and in the pastures, as directed elsewhere.

Winter Grain should be up and growing finely now. It may sometimes be sown the first of October and produce a fair yield. From the 10th to the 20th of September is the best time.

Orchard and Nursery.

October is *the* Autumn planting month, and both tree planters and tree growers will be very busy—the former in setting out trees, and the latter in taking up and sending them away from his nursery. It is usual to wait for the frost to strip the trees of their foliage, but if that operation is delayed too long, the leaves may be pulled off by hand and the trees taken up. We advise planting early in Fall, that the ground may become settled and the tree established before Winter sets in. See page 304.

The farmer or fruit grower is also now busy in securing the late apples, pears and quinces, making cider, etc.

Apples—Gather Winter keeping sorts, and those for marketing with care, picking by hand, and laying softly, in the barrels. Read under "Apple Gathering," page 304. Pare and dry a good supply for Winter and Spring, as already alluded to in indoor work of the "Farm." Save seeds for planting, and put in boxes of earth before they dry up. Set trees in the orchard, along the lanes and roads, and about the buildings. A few apple trees may grow about the yards without injury, and be ornamental and profitable, besides making a fine shade in Summer.

Cider—With the hand or power mill grind and press those apples which keep poorly and which do not sell well. Let them be clean and sound. Put the strained juice in clean barrels and leave the bung out until worked, then close tightly.

Evergreens may well be left standing until Spring, except in special cases, where they may be moved with the roots and soil around them little disturbed.

Insects—If the young orchard of apple or peach trees was not examined for borers last month, attend to them, ff, before they get finally arranged in their Winter quarters, from which it is difficult to expel them. Destroy any loose cocoons found hanging to the branches or partially secreted under the rough bark.

Labels—Allow no young tree to be set out or go from the nursery without being marked. See that labels on standards are well secured.

Lands for Orchard or Nursery planting—Manure thoroughly, plow and subsoil or trench well drained land and prepare it for early Fall or Spring planting.

Manure orchard trees by spreading about them a compost of yard manure, muck and lime, or ashes. The Winter rains will carry it to the roots.

Mice are sometimes troublesome both in the nursery and orchard. Clean tillage, so that no harbors are at hand to afford them protection, is the best preventive.

Pears—Gather late ones carefully and lay them away upon shelves to ripen. Where only a few of a choice variety are to be kept, pack them in cotton batting, or between folds of woolen or flannel cloth. Put up in bottles or cans for Winter use. We value them highly for putting up.

Pruning *may* still be done, though, as formerly stated, we prefer July and August.

Quinces will need gathering and using, or marketing, m. They make a fine jelly, preserve, or marmalade, and a little added to stewed apples or pears gives an agreeable flavor. They are also very nice when stewed and put in glass bottles.

Seeds and Stones of Fruit—Sow early or put in boxes of earth, the seeds of apples, pears, plums, cherries, peaches, walnuts, chestnuts, butternuts, filberts, thorns, acorns, holly, beech, ash, maple, etc. Allow none of them to become thoroughly dry before planting.

Kitchen and Fruit Garden.

The professional or market gardener has enough to do now. With a few exceptions the remainder of his crops need harvesting and marketing or they must be put into Winter quarters, besides, much of his land intended for early planting needs digging or plowing now, especially if inclined to clay, so as to expose the subsoil to the action of the elements during Winter. A large stock of manure will also be wanted in early Spring, and it is better to get it together or provide composting materials now. The work in the farm garden is of a similar character.

Asparagus—Make and plant beds as directed on p. 307.

Bean Poles, Raspberry and Blackberry Stakes—Collect, ll, and put away in Winter quarters under cover.

Beets—Harvest, m, or before hard freezing. In removing the tops do not wound the crown to cause bleeding, and consequent decay.

Blackberries—Plant, m, l. See page 307.

Cabbages and Cauliflowers—Excepting the late planted ones which are still growing, the crop will need harvesting, ll. Set young plants in cold frames, m, l.

Carrots are done growing and may be dug and stored, m, l.

Celery—Give its final earthing, ff, so as to finish blanching. Tie with soft strings, and do not bruise the stalks. It will need harvesting, ll, in most localities.

Cold Frames—If not in readiness, prepare them, m, ll, to receive lettuce, cabbage, cauliflower, etc., for protection during the Winter.

Currants and Gooseberries may be set out, m, l.

Fruit Trees—Plant hardy sorts m, l, as directed above.

Grapes—Those for Winter keeping should remain upon the vines until hard frosts are expected. Gather carefully; cut out defective berries and pack in cotton batting or between newspapers even, in shallow, close boxes. Put in a dry place away from frost, and they will keep until January. Grape roots may be set out, m, l.

Mushrooms—Beds may be made any time during this month. Protect with a covering of straw any exposed beds, upon the approach of heavy frosts. New beds are better made under cover at this season. For full directions to make beds, see Volume XVI, page 262.

Onions—In colder regions cover those sown last month with litter, straw or brush, ll.

Parsneps keep in the ground over Winter, and are rather improved by freezing. Dig, ll, and bury in sand in the cellar, such as will be wanted while the ground is frozen.

Raspberries—Hardy varieties may be planted, m, l, and even tender sorts, by burying them at once. We prefer Spring planting for those which require protection. Cover with earth, ll, those already planted.

Rhubarb—Plant roots or crowns of the Linnæus, mm, l. A few may be set in the cellar, ll, or next month, for early forcing in the Spring. See page 307.

Salsafy—Treat as parsneps.

Seeds—Continue to collect and put up any late seeds now ripening. See page 309.

Spinach—Cover, ll, those sown last month, and so seed, f, m, in cold frames. Weed and thin former sowings, cooking the surplus plants.

Squashes—Take in before they freeze, and keep in a cool dry place as long as may be, previous to putting in the cellar, or other Winter quarters. Handle carefully and they will keep until Spring.

Strawberry beds may still be set out, ff. Cover beds, ll, with tree leaves, or fine manure, to afford a partial protection.

Tomatoes—Continue to put away in cans or bottles for Winter use; they will be very acceptable next Winter. The vines or branches are often killed by frost, leaving many sound, green tomatoes. They may be pickled, or laid away on shelves in a warm room where they will gradually ripen.

Turnips—Late growing sorts will bear much frost and may be left until November. Gather early varieties, m, ll.

Vegetables for Seed—Roots are sometimes scarce when wanted to set out in Spring. Have a few barrels of them in the cellar, and put in a good supply of the finest well matured vegetables which are to remain unmolested until planting time

Winter Cherries—Continue to collect and use as directed last month.

Flower Garden and Lawn.

These grounds should not be given up to neglect, as is too frequently the case at this season. If properly cared for, there is still a richness in the late blooms quite attractive.

Bedded Plants—Lift before heavy frosts, and pot for Winter or early Spring bloom, Geraniums, Verbenas, Fuchsias, Petunias, etc. Cuttings may now be taken to form new plants of each of the above. Place them in pots at once.

Bulbs—Plant crown imperial, hyacinth, tulip, crocus, lillies, polyanthus, ranunculus, anemone, oxalis, tuberose, snow drop, etc., f, m, in preference to leaving them until November. No flower garden is complete without a good collection of bulbs. See page 308.

Carnations, Pinks, Picotees, and Pansies—Pot the rooted layers, and remove all to the houses, frames, or pits, ll.

Chrysanthemums now make a fine show of bloom, and are the more prized as annuals and other plants are mostly out of flower. Keep neatly tied up, and only cut away when actually killed by frost.

Dahlias and Gladioli—Mark as directed last month, and take up on the approach of freezing weather.

Dicentras ("dielytras"), pæonies, lillies, hollyhocks, and other perennial flowers do better when divided and reset in the Fall as soon as their foliage has been killed by frost. Especially is this desirable with early blooming plants.

Frames and Pits—Prepare, ff, for tender plants requiring a protection.

Hedges—Plant deciduous trees or shrubs, ll.

Seeds—Save those ripening now, and label them for Spring planting. See directions with illustrated papers and boxes on page 309.

Shrubs—Plant Pyrus Japonica, Dwarf Almond, Hardy Azalias, Sweet Scented Shrubs, Scotch Broom, Mezereon, Deutzias, Honeysuckles, Euonymus, Altheas, Hydrangeas, Glycine, Jasmine, Privet, Mahonias, Syringos, Flowering Currants, Purple Fringe, Spiræas, Snowberry, Lilacs, Viburnums, Roses and Chinese Weigelia. These are desirable hardy shrubs, many of them blooming quite early in the season, and on this account do best with Fall planting.

Stocks and Wall Flowers—Take up and pot, ll, removing to the greenhouse, or place in frames or pits.

Tender Plants either in borders or set out in pots, will all need removing to the houses, m, ll.

Trees—Plant in the lawn, along the avenues, walks, and about the yards, m, l. Combine utility with beauty, by using a few cherry or pear trees.

Green and Hot Houses.

Having fully attended to all the directions of last month, the principal business will be fitting up the houses and bringing in and arranging the plants, cleansing the pots and adding a top dressing of fresh potting soil.

The different plants should be grouped with reference, to their habits by placing those requiring little water here, and plants from the torrid zone, which need a high degree of heat in another room. So also some are to be rapidly forced, while others only require to be kept from freezing. With several houses, or divisions of one house, all these requirements can be attended to.

The houses will need to be kept open much of the time, especially until the plants get acclimated to in-door quarters again.

Moderate fires will be necessary in the forcing rooms, regulated by thermometers in each department.

Insects should not be allowed to establish themselves. They are more easily kept out, than expelled after getting a foothold.

It is well to syringe the walls thoroughly before bringing in the plants, and occasionally afterwards, to keep insects from harboring in the crevices, and to promote a humid atmosphere. Newly potted plants will need watering freely.

Apiary in Oct.

BY M. QUINBY.

To avoid "bad luck" in wintering bees, it is important to have all stocks in suitable condition to begin with. First. See that all the colonies are strong—they might be strong enough to repel an attack of robbers, and yet unsuitable for Winter—turn back the hive on a cool morning to get a look between the combs: the bees in the best ones will occupy the spaces between nearly all of them. The amount of honey does not decide this point; when very full, the bees when few, will be near the bottom. If the colony is deficient, from no disease or other apparent cause, the fault is probably with the queen, which should be removed, and another one substituted with a small colony.....When doubtful of the quantity of honey, it can be determined pretty nearly by weighing the hive To do it readily, get a strong cord or small rope two or three feet long, and tie the two ends together forming a loop long enough to go across the top of the hive diagonally and catch under the two corners—the tops of most of the common hives project enough for this purpose. The hooks of steelyards in the center of the loop will raise the hive, and give the weight. A little smoke from a burning cotton rag will keep the bees peaceable during the operation, if done quietly. By weighing an empty hive of similar size, the contents can be estimated, allowing four or five lbs. for bees, combs, etc. More than this should be allowed for the extra amount of bee-bread, when the bees have worked without a queen. A colony of bees have been wintered on fourteen pounds of honey; but this amount is not to be relied upon. Much less than twenty-five pounds is not safe in a latitude north of 42°.....If feeding is necessary to bring the Winter stores to the required amount, honey is the best material. That from the West Indies will do, or such as is taken from diseased hives; but it should have water added, to prevent burning, and then scald and skim it thoroughly. A handful of salt in about ten pounds, might be of service. To feed only such as need it, put it in a shallow dish with shavings or short straw to prevent the bees from drowning, then place it on the top of the hive, open the holes and cover closely. When boxes of surplus, part full, are on hand, and this is preferred to feed, it is only necessary to set the box on the hive; cells that are sealed should be opened—after the honey is out the boxes should be set away with the combs undisturbed for use another year. Any combs containing honey taken from a hive that was too light, may be put on the same as the boxes....The movable combs can be managed with much less trouble. It is quite common for some stocks to have more stores than are really needed, when an exchange of a frame or two with a light one will benefit both....All healthy brood is generally matured by this time, and any diseased that escaped notice before, may be readily detected now. The empty cells left by this maturing brood, make the present month the proper time for feeding.

Agricultural Exhibitions for 1859.

[The following list embraces all the October Exhibitions reported to the office of the *American Agriculturist.*]

STATE EXHIBITIONS.

Place.	*Where held.*	*Date.*	
Missouri Central	Boonville	Oct.	3—8
Michigan	Detroit	"	4—7
New-York	Albany	"	4—7
New-Hampshire	Dover	"	5—7
Tennessee	Nashville	"	5—7
South East Missouri	Cape Girardeau	"	6—8
Virginia (Seabord)	Norfolk	"	8—11
South West Missouri	Springfield	"	11—14
Connecticut	New-Haven	"	11—14
North Carolina	Raleigh	"	18—21
Georgia South Central	Atlanta	"	24—28
Central Virginia	Richmond	"	25—29
Maryland	Frederick City	"	25—28
South Carolina	Columbia	Nov.	8—11
Alabama	Montgomery	"	15—18

COUNTY EXHIBITIONS.

ALABAMA.			
Tennessee Valley	Tuscumbia	Oct.	26—29
CALIFORNIA.			
Alameda	Oakland	"	4—
Santa Clara	San Jose	"	18—
CONNECTICUT.			
Middlesex	Middletown	Oct.	5— 7
ILLINOIS.			
Ogle	Oregon	Oct.	4— 6
Bureau	Princeton	"	4— 7
Champaign	Urbana	"	4— 7
Lee	Amboy	"	4— 7
Sangamon	Springfield	"	4— 7
Scott	Winchester	"	5— 7
Randolph	Sparta	"	5— 7
Kankakee	Soldier Creek Gr.	"	5— 7
Shelby	Shelbyville	"	11—14
Adams	Quincy	"	12—14
Brown	Stirling	"	12—14
INDIANA.			
Wells	Bluffton	Oct.	4— 5
Warwick	Boonville	"	4— 8
Laporte	Laporte	"	4— 9
Miami	Peru	"	5— 7
Wabash	Wabash	"	5— 7
Morgan	Centreton	"	5— 8
Marshall	Plymouth	"	12—14
Boone	Lebanon	"	13—15
Whitney	Columbia City	"	14—15
Fulton	Rochester	"	14—15
De Kalb	Auburn	"	17—19
Pulaski	Winimac	"	25—26
Posey	New Harmony	"	25—27
MISSISSIPPI.			
Monroe	Aberdeen	Oct.	18—20
Marshall	Holly Springs	"	25—29
KENTUCKY.			
Logan	Russellville	Oct.	11—14
Springfield	Springfield	"	11..14
Daviess	Owensboro	"	11—14
Henderson, Hopkins and Union	Henderson	"	18—21
IOWA.			
Humboldt	Dakota City	Oct.	4— 5
Delaware	Delhi	"	4— 5
Floyd	St. Charles City	"	5— 6
Appanoose	Centreville	"	6— 7
Warren	Indianola	"	6— 7
Cedar	M. V. Butler's	"	6— 7
Iowa	Marengo	"	6— 7
Marshall	Albion	"	6— 7
Cerre Gordo	Mason City	"	10—11
Lucas	Chariton	"	12—13
Hamilton	Webster City	"	19—20
Shelby	Shelbyville	"	27—28
MAINE.			
Androscoggin	Lewiston	Oct.	4— 6
North Aroostook	Presque Isle	"	5— 6
North Penobscot	Lincoln	"	5— 6
Franklin	Farmington	"	5— 7
Kennebec	Readfield	"	11—13
Hancock	Ellsworth	"	11—13
York	Saco	"	11—13
North Somerset	Bingham	"	12—13
Lincoln	Union	"	18—20
Cumberland	Gorham	"	19—21
MASSACHUSETTS.			
Hampden, East	Palmer	Oct.	4— 5
Plymouth	Bridgewater	"	5— 6
Barnstable	Barnstable	"	5— 6
Berkshire	Pittsfield	"	5— 7
Martha's Vineyard	West Tisbury	"	11—12
Nantucket	Nantucket	"	12—13
Hampshire	Amherst	"	13—14
MICHIGAN.			
Lenawee	Adrian	Oct.	5— 6
Ingham	Mason	"	6— 7
Macomb	Utica	"	10—12
Washtenaw	Ann Arbor	"	11—13
Oakland	Pontiac	"	12—13
Hillsdale	Hillsdale	"	12—13
Lapeer	Lapeer	"	18—20
MINNESOTA.			
Wabashaw	Wabashaw	Oct.	13—14
MISSOURI.			
Polk	Bolivar	Oct.	4— 6
Lawrence	Mount Vernon	"	4— 6
Clay	Liberty	"	4— 8
Moniteau	Tipton	"	10—13
Chariton	Keytesville	"	11—14
Green	Springfield	"	11—14
Lafayette	Lexington	"	11—15
Platte	Platte City	"	11—14
Franklin	Union	"	13—15
Cedar	Stockton	"	17—20
Marion	Palmyra	"	20—24
Bates	Butler	"	29—31
NEBRASKA.			
Otoe	Nebraska City	Oct	5— 6
NEW BRUNSWICK.			
York	Fredericton	Oct.	11—12
NEW JERSEY.			
Somerset	Somerville	Oct.	4— 7
Warren	Belvidere	"	11—14
NEW-YORK.			
American Institute	New-York	Sept.	21—Oct. 28
Seneca	Waterloo	Oct.	13—14
Yates	Penn Yan	"	12—13
TOWN AND DISTRICT SOCIETIES.			
Dryden (Tomp's Co.)	Dryden	Oct.	3— 5
Camden (Oneida Co)	Camden	"	6— 7
Palmyra (Wayne Co)	Palmyra	"	11—13
Wilson (Niagara Co.)	Wilson	"	12—
OHIO			
Hancock	Findlay	Oct.	3— 5
Logan	Bellefontaine	"	3— 6
Mahoning	Canfield	"	4— 5
Darke	Greenville	"	4— 6
Cuyahoga	Cleveland	"	4— 6
Clark	Springfield	"	4— 6
Ross	Chillicothe	"	4— 6
Butler	Hamilton	"	4— 7
Licking	Newark	"	5— 6
Noble	Sarahsville	"	5— 6
Wood	Bowling Green	"	5— 6
Muskingum	Zanesville	"	5— 7
Lake	Painesville	"	5— 7
Sandusky	Fremont	"	5— 7
Stark	Canton	"	5— 7
Morrow	Mt. Gilead	"	5— 7
Harrison	Cadiz	"	5— 7
Wyandot	Upper Sandusky	"	5— 7
Wayne	Wooster	"	5— 7
Monroe	Woodsfield	"	5— 7
Montgomery	Dayton	"	5— 8
Delaware	Delaware	"	11—13
Coshocton	Coshocton	"	12—14
Ashland	Ashland	"	12—14
Trumbull	Warren	"	12—14
Summit	Akron	"	12—14
Morgan	McConnellsville	"	12—14
Crawford	Bucyrus	"	12—14
Hardin	Kenton	"	12—14
Fairfield	Lancaster	"	13—15
Carroll	Carrollton	"	25—27
OREGON.			
Linn	Albany	Oct.	5— 6
PENNSYLVANIA.			
Conneaugh Valley	Blairsville	Oct.	4— 6
Montgomery	———	"	4— 7
Lancaster	Lancaster	"	4— 8
Crawford	Conneautville	"	5— 7
Clarion	Clarion	"	5— 7
Monongahela	Monongahela City	"	6— 7
Union	Lewisburg	"	6— 8
TENNESSEE.			
Williamson	Franklin	Oct.	4— 7
Fayette	Somerville	"	4— 8
Wilson	Lebanon	"	5— 8
Obion	Troy	"	11—14
Henry	Paris	"	12—14
Western Division	Jackson	"	18—22
Warren	McMinnville	"	19—21
Dyer	Dyersburg	"	26—29
Carroll	Huntingdon	"	27—29
Weakly	Dresden	"	27—29
VIRGINIA.			
Campbell	Lynchburg	Oct.	18—22
WISCONSIN.			
Manitowoc	Manitowoc	Oct.	3— 4
Washara	Wautoma	"	12—14
NORTH CAROLINA.			
Duplin	Kenansville	"	17—18
Sampson	Clinton	Dec.	1— 3

Breeding In-and-In.

BY C. M. CLAY.....III.

[The following article was designed for the September *Agriculturist*, but through some delay of the mail, it did not arrive until just as we were going to press.—ED.]

A Cattle Breeder's 3d No. (page 164, June No.) is before me. In order to a clear understanding of the controversy I must restate my positions upon in-and-in breeding, or *close* breeding (the latter term I shall hereafter for brevity use) as made in the Ohio Farmer:

"Breeding in-and-in," that is to say, breeding to dam or sire, or near of kin, has been too fully discussed by some of the most intelligent men in this country and England, for further argument. Its *advantages* are: 1st. It reduces the bone and gives to a certain extent, more fineness and symmetry. 2nd. It produces a tendency to early maturity. 3d. It suits an indolent breeder—he gets at home, what others go far to seek. He chooses once for all: while others make a yearly choice through life. 4th. It is urged as the *natural order*.

Its *disadvantages* are: 1st. It produces idiocy, blindness, want of constitution, disease, and impotency. 2nd. It takes away all the advantages of a wide and wise selection of superior animals. 3d. It is practiced *now*, and *always* by that large class of mankind who never have, and never will, produce any thing memorable. 4th. It falsely bases all improvement upon feeding and shelter: ignoring selection of superior points. 5th. It is *not* the natural order as alleged. In a state of nature, the feeble creatures of in-and-in breeding are driven off and killed by the superior types from all sources. When man attempts to keep up in-and-in breeding, he violates this great law of *selection*, and Nature closes this false practice by impotency, disease, and death. From all which I conclude the rule—"never breed in-and-in, when you can get an equal animal of the same race, breed, or family." These are the positions which A Cattle Breeder volunteered to attack and overthrow in his first No. in the *Agriculturist*. In reply I laid down 8 bases for my theory. 1. Argument from analogy in the Human Race. 2. Experience. 3. Special Proof. 4. False Proof: Race Horses. 5. False Proof: Bakewell. 6. Coleman on the Dishleys. 7. R. L. Allen's "Domestic Animals, N. Y., 1842." 8. Jonas Webb, Southdowns: and the Colling theory. These bases were, some in substantiation of my argument; and some in overthrow of my opponent's argument.

Now when it is remembered that I am attacked, in my theory by A Cattle Breeder, it will not do for him to say in this 3d No. that "he will not be led off on an issue he himself (I) have made." For that issue is one of the bases of my theory; and if he can not overthrow it, which he virtually admits, he yields its truth. 1. Analogy. In my 2nd No. on analogy, I think I have proved all the evils which I predicated of close breeding in man, beyond controversy. If "man outside of mental and sentimental phenomena, is governed by the same physical laws as other animals," which A Cattle Breeder in his No. 3 does not again attempt to refute: then are all the evils of close breeding in cattle proved, Q. E. D. But my opponent attempts to elude my conclusion by affecting that only mental and sentimental results have been proved—whilst the physical law is ignored in disregard of my lists of "*defective*" physically! Now the best Logicians admit that we know nothing of the modus operandi of cause and effect: the whole subject of causation is therefore expressed thus. "A follows B always, under similar circumstances." If madness and idiocy follow the generation of near of kin, then here are results of a practice which overthrow nature's great law, that intelligence and bodily development in a normal manner should go together. For nature is always consistent with herself, and therefore such practice of close breeding is wrong and should be abandoned.

But my opponent very wisely, for successful extension of this dispute, escapes at once from this logical crucible, and ventilates once more his historical reading. What if the Romans were as corrupt as represented, which I do not deny! What if their houses were covered with obscene pictures, and every utensil ornamented with what all modern delicacy leads us to conceal! Does that throw any light upon this dispute? I think it all proves, if any thing, just the contrary of what it is contended. I think it proves that mental licentiousness and physical degeneracy go hand in hand, that body and soul are too intimately connected for the one to suffer, whilst the other flourishes. And if all this mental pruriency and physical debauchery—entering even into incest—were so common then we are at no loss to see at once, why it was, that the Goth and the Vandal crushed out the once conquerors of the world: in the language of Gibbon—making no effort and leaving no sign of ancient manhood! But let us come down from "these sweeping" and "positive flourishes" to plain facts. Plutarch gives us the lives of forty-nine of the most eminent Grecians and Romans, embracing all classes. Now not one of these great men, so far as we know, was the fruit of incestous intercourse. Many of them were not only men of great intellect, but most of them as we are told, of most extraordinary *physical* power and beauty! And although the heathen religion was not favorable to our ideas of chastity, yet nowhere in modern times do we find more domestic delicacy and devotion and purity of life, than is evidenced in the lives and letters and tragical events in the career of those men. I say again then that Roman and Grecian History does not bear out the theory of A Cattle Breeder, but amply sustains my own.

So far as English history, and especially that of the Georges is concerned, I deny that I admitted they were fine "physical" specimens: on the contrary, I think that men who were *adulterous*, *scrofulous*, and *mad* are poor types of humanity, and such as do not commend themselves to me, at least, as examples of good "breeding"!

2. "*Experience*": and "*Special Proof*" 3: seem to be conceded, which only allows me an opportunity of glancing at the first part of No. 3d article. For when A Cattle Breeder comes upon the "Stud Book" again, I shall be ready to meet him.

"*Special Proof*" No. 4., is amply sustained in my 2nd No. upon the Race Horse, and is not yet responded to, by my opponent.

5. *False Proof.* I think A Cattle Breeder is indulging in "sweeping flourishes," when he says in No. 2, "he (Bakewell) then bred *intensely* in-and-in." In my first No. I showed from good *authority*, that he made a wide selection of not only "Long Wooled" sheep, but went into specific, or quasi-specific varieties—the South Downs: and that W. C. Spooner, good authority, says, he kept his method of breeding "a profound secret, which died with him!" Now my opponent puts up in refutation of this, no new fact or authority, but indulges in "sweeping flourishes of the pen!" I proved that, by wide and wise selection, Bakewell carried up the Dishleys—and that by "close breeding" his *successors* carried them down! I think that a great deal more than "nothing:" and their "lack of brains" was in deluding themselves with the "close breeding"—the "concentrated blood" theory.

With regard to the Bakewell Long Horns, my opponent agrees that "he found them in an advanced stage of perfection so far as symmetry of form and a capacity to take on flesh were concerned": now these are the qualities which I admitted in the Ohio Farmer (see as above), were the results of close breeding, when not pressed to extremes; but it is admitted that in the Long Horns he did proceed to an extreme length in close breeding. What was the result as now admitted by all writers, and as shown by the reports of the Smithfield Market! that the Long Horns have completely run down, having lost that "advanced state of perfection" which they once had! Could any case be more in point to prove my theory?

6. *Coleman on the Dishleys.* A Cattle Breeder "declines receiving Coleman *as authority in the stock line*!" Now the reader will see by referring to my former article, that I do not give Coleman's own speculations merely, but his *authorities*—men who killed and sold the sheep in the Smithfield Market—where all the sheep in the United Kingdom come together with their hides off! If A Cattle Breeder will not yield to such authority as this, the public will!

7. *R. L. Allen.* A Cattle Breeder "coincides with R. L. Allen, entirely, coupled with the conditions which he attaches to them." Well then what's the use of more words? Mr. Allen, as quoted by me uses this "sweeping and positive flourish of the pen."—"It is *always* better to avoid close relationship by selecting equally meritorious stock-getters of the same breed, from other sources." Indeed! then what becomes of the famous idea of the infusion of the "*concentrated blood*" by close breeding? I mean no disrespect to any one when I denounce the whole idea of "concentrated blood" as an illusion.*

8. *Jonas Webb.* A Cattle Breeder will insist that Jonas Webb breeds "in-and-in" in face of the facts! Mr. Webb I learn from persons who have conversed with him, divides his flock into 3 classes (now five I suppose) for the express purpose of *avoiding* close breeding. If close breeding and the "concentrated blood" be the thing, then why split it into three, and now into five, *cold* and *thin dilutions*? My opponent is in this dilemma with regard to Mr. Webb; if he admits my facts, he loses his logic: and if he admits the logic, he loses his facts!

As to Mr. Price's Hereford Herd, when I know nothing I think it "logical" to say nothing! It is not logical however, to admit a single example cited, with none of the data given, to stand against great and universal principles! I know but little about Hereford Cattle. They were tried by Henry Clay and others in Kentucky, a "long time ago," but are now run down! The grade specimens which I saw, were long-bodied, long-legged; coarse-hided, coarse-boned, hard-feeders, and hard-handlers; poor-milkers, but good oxen. My friend Wm. H. Sotham, brought some specimens to Kentucky lately, said to be thorough-bred, which corresponded pretty well with the grades I before saw. They were well ribbed however, and good in the girth, and in the crops. Now if close breeding (which performs to some extent the offices of *castration*) makes finer bone and a tendency to fatten, which I admitted, then the Herefords of Mr. Price may have been improved somewhat by close breeding; but that the advantages in the long run were not more than lost by the opposite evils, I must have more proof, before I shall think of making the concession—even in such case of coarse, hard, and rough stock.

With regard to the Collings, as I have very elaborately discussed that subject with Ohio gentlemen in the "Farmer," I will briefly state in reply to A Cattle Breeder, that like Bakewell, the Collings made *choice* and *wide selections* of Short Horns to begin with, and he said himself according to Mr. Bates and others, that he (Charles), never owned better cows than he *bought of others!* Then he never improved his cattle in *degree*, although he may have done so in quantity, or number. That Colling was running down his stock, was no doubt the cause of his seeking *new blood*, even to the outrage of a specific cross with an inferior breed, as in the case of the Scotch Galloway.

I will not go into particulars about the Bates, Booth, and other bloods alluded to by A Cattle Breeder: because that stock is widely owned now in America, and what I should say might one way or other affect the value of it, or at least bring me into a "muss," which would be neither agreeable, nor short lived! I must therefore be allowed to indulge in "sweeping flourishes." The result of all this close breeding bears out my whole theory. Much of this stock, with here and there fine specimens which have cropped out in spite of the "concentrated blood," is *small in size, barren altogether, or at early ages, defective in the chest, unthrifty, poor milkers, diseased,* and *liable to early death.* I could give memorable instances if I ventured.

The best Short Horns are now coming up from other than the celebrated "concentrated bloods" in this country and England—because like the English nobility they are being infused with *new blood*.

A great deal of the flourish about certain herds is "Barnum!" kept up for selfish and interested purposes; but the time is at hand, when cattle must stand upon their merits, and not upon prestige or puffs! because the knowledge of good points is more generally and better understood. In making these remarks, I do not aim them at a Cattle Breeder, who is unknown to me, or any other individuals epecially. I am willing to admit that superior intelligence and tact should have their reward, and don't mean to set myself up as more disinterested than others. But I speak in favor of Philosophical progress, when I say that much of this assumed superiority in celebrated herds is exaggerated; and that breeders of cattle would do well to look to the cattle themselves, and to pure pedigrees, rather than to great names, or the reputation of any man or any herd.

The further remarks of a Cattle Breeder upon *uniformity*, in consequence of close breeding and "concentration of blood," overlooks the objects of scientific breeding, and the whole idea of progress in animal development. Every now and then certain leading breeders have certain *colors* in the ascendency; at one time a roan; at another a red; and again, a red and white; and then a pure white, and forthwith all Noodledom runs mad after the special color! For my part I repudiate the whole thing of "breeding to a feather," as unworthy of a sensible man of taste. All colors are good which are peculiar to, or characteristic of, the *pure* breed; and so far as taste is concerned, certainly a variety in color in herds is a large element of the beautiful. And the question now, is not whether the children are blondes, or brunettes, red, black, or auburn haired? but are they well formed, healthy, sensible, and beautiful? So of cattle. Have they the best points? Not can we perpetuate their characteristics to "a feather," but can we improve them, in form, size, quality, milk, etc., etc.? There is old fogyism

* As this term has been used here and elsewhere imposingly, let us strip it of its "sweeping flourish." The blood of a "cold scrub" has the same quantity of nitrogen, iron, phosphate of lime, &c., as the blood of the highest "concentrated bloods"—it has the same specific gravity and color—all the characteristics of blood! Brandy may be first, second, or third proof, more or less concentrated, but not blood. Does a "Cattle Breeder" mean *purity* of blood? then let him use the terms, "pure" and "mixed" bloods. If A is pure, and B is pure, and C is pure—then is the progeny of A, B, and C as pure as the progeny of A and B; for purity is the superlative in degree, and can not be transcended. In mixed bloods there can be no contest between us. One or the other type is ever contending for the ascendency—till one or the other ultimately triumphs or is lost (if a new mixed type of mixed bloods *is possible*) in an intermediate development! So here my opponent is found using a word to convey an impression which is without existence; or a term without a meaning: to sustain a superiority which is baseless! I know it is generally assumed by breeders of "improved stock," as the cant phrase is, that a high bred animal will impress his offspring with his characteristics over the "common stock." That is true only when the high-bred animal is a *purely* bred animal. If the "common stock" is pure of its kind: and the improved stock impure, then the common stock will most impart its characteristics to the progeny! This conclusion I defy any one to overthrow. True, it may be contended that all "common" stock or "scrubs" are mongrels and impure—that may be; but it must first be proved before it can be made the basis of a Philosophical theory.

and empiricism in breeding as well as in politics and medicine; and we must, as progressives, hold fast to what is good in the past, and strive for the "excelsior" in the future!

CATTLE BREEDER'S No. 4.

In reply, I insert Mr. Bruce's letter, which I conclude is all that need be said. Having proved my theory in so many instances—it is of but little account that here and there exceptions may be found. C. M. C.

LEXINGTON, June 3d, 1859.

DEAR SIR: Yours of the 31st ult. was received yesterday. I can give you some instances of failure from in-and-in breeding, also some extracts from celebrated writers upon the subject. Experience tells us that the greatest success has ever attended those breeders, and that the most valuable stock has resulted therefrom, who have adhered to remote crosses. The finest running and highest formed horses that have appeared in England, were bred from the union of two distinct stocks, the Herod and Eclipse. The former stock was invariably remarkable for stoutness and lastingness, the latter for speed, and by the union of these two opposite qualities, (whereby a remote cross was kept up,) a stock was obtained in which was blended a sufficiency of the requisite qualities of both to make first rate racing horses. There was another distinct stock in England which crossed well upon the Herod and Eclipse branches; I allude to the Matchem or Godolphin Arabian stock; and it may here be remarked that there has scarcely been a first rate runner on the turf in England for the last century, without more or less of the blood of this valuable horse. A remote cross was at that early day considered necessary, yet there were a few exceptions to it as a rule, as some of the most distinguished horses in England were bred considerably in-and-in; Flying Childers, for instance, considered the fleetest horse of the world. Old Fox, a celebrated racer and valuable stallion, although not in-and-in bred, had an affinity of blood in his pedigree, as also other high formed racers and stallions. But these exceptions arose in England in the earlier days of breeding, about the time of the importation of particular Barb, Turk and Arabian horses, that possessed peculiar and extraordinary properties as stock getters, and their immediate descendants constituted the best racers of those days. In later days, little or no success has attended the efforts of those who have bred in-and-in. The Earl of Egremont occasionally tried it, as well as Lord Derby, (owner of Sir Peter Teazle,) but with no encouragement. Morland, in his treatise on the genealogy of the English Blood-Horse, expressly says, that incestuous crosses should be avoided. "Breeding in-and-in" is an exploded doctrine, that has been put at rest in England by the experience of those distinguished turfmen named. It is now regarded as a violation of an imperious law of the whole animal kingdom.

By reference to the London (old) Sporting Magazine for Oct., 1840, the Editor remarks that many instances may be noticed of the bad effects of too near a consanguinity, a few cases are mentioned for the purpose of conviction, viz: We find by the pedigrees of Salute, Solace, and Vestment, that they were all in-bred and bad: they were out of Dulcamara by Waxey, her dam Witchery by Sorcerer; Salute was by Muley, who was by Orville out of Eleanor by Whiskey, her dam the Young Giantess, the *dam of Sorcerer*. The other two were by Longwaist: Whalebone was his sire, and got by Waxey, the sire also of Dulcamara. The Flydener mare, bred by Mr. Canning in 1817, was equally bad. Flydener was by Sir Peter, as also was Coriolanus, his grandsire. Mr. Stirling's Aaronides was by Aaron out of Aaron's dam, and he was considered dreadfully bad; so was also another colt bred by the same gentleman, got by Aaron out of Miss Manager, the grandam of Aaron. The same writer remarks that by referring to the Stud Book about a century ago, we will find many of the best horses of those days were very closely bred; one reason for which, there were not so many horses reared at that time, consequently there was not the choice which we now possess. Whatever beneficial results might appear to have arisen from breeding in-and-in in those days, may be attributed to the fact of its being a combination of the best blood of which our forefathers could avail themselves, It is, however, very clear that it will not produce so valuable an animal as may be procured from the various sources which we are now in possession of.

There was not a horse in "olden time" that equals the performance of Venison, who, at three years old, traveled 900 miles, and won 12 out of 14 races at all distances from 1 to 4 miles; he is a horse with a free pedigree, until we go back to the fifth generation the same blood does not present itself; we then find the Herod blood on both sides, but so far distant as not to be objectionable. Grey Momus is another instance, winning seven races out of nine; Prosady, bred in 1818 by Don Cossack, out of Mitre by Waxey, ran for a succession of years, winning 39 times, she is free from blood too nearly related. The celebrated Euphrates had also a clear pedigree, there are no traces of consanguinity till we get back to the Regulus blood, which is four and five generations back. Liston, a celebrated English racer, had Highflyer blood on both sides, but not nearer than the fourth generation; this extraordinary horse won 51 races, and continued to race until he was thirteen years old. Isaac, another celebrated racer, won 19 races in 1839, besides 22 in previous years; he had no traces of consanguinity in his pedigree. In our own country, some who were in-and-in bred, raced well, but have been total failures in the stud; Trifle, for instance, one of the gamest, and best four mile nags of her day, was by Sir Charles, he by Sir Archey, her dam by Cicero, he by Sir Archey, she was a total failure in the stud, never having produced anything of note; Coquette, by Sir Archey, produced Janette and Virginia Taylor, both capital racers, and both by their mother's sire; the success of this experiment of Col. Johnson induced many others to try the same; and to use the language of a writer of that day, after this followed "a numerous and rickety offspring of diversified *incest*, which damned this theory to certain and irretrievable overthrow." It was generally remarked that the deterioration of the race-horse of Virginia was attributed to in-and-in breeding. Flirtilla, jr.. a mare of fine speed, was by Sir Archey out of Old Flirtilla by Sir Archey; these mares have produced nothing of even mediocrity, the best one was Cassandra, by imported Priam out of Flirtilla, jr.; Boston, the most remarkable racehorse of our own country, was by Timoleon, he by Sir Archey, he by imported Diomede, his dam by Balls Florizel, and he by imported Diomede, being a double cross of Diomede; Boston started in 44 races, won 39, 31 of them 4 at mile heats, 8 at 3 mile heats; he sired Lexington, Lecomte, Bostona, Tally-Ho, all of remote crosses except Lexington, whose grandam was by Sumpter, he by Sir Archey, not what would be styled in-and-in breeding. Fashion, the best mare of her day, and the best of the produce of her dam, is by imported Trustee, of a distinct family, whose breeding has been so far a total failure, attributed to the fact that she was bred to her own sire, and she also had two or more colts by her half-brother Mariner, who were delicate, and of no reputation as racers. There has come under my observation in the last few days, a mare, who became accidentally impregnated by her own brother, the colt was illy shaped, and died at one week old. I fear I have said too much, but numbers of other instances might be cited, to prove that in-and-in breeding will not do, and that the breeders of the present day avoid it. Yours, S. D. BRUCE.

C. M. CLAY, Esq.

Written for the American Agriculturist.—Prize Articles.

The Dairy....XI.

Conclusion.

The preceding articles which have been written on the management of the Dairy, have considered it mainly as a separate branch of agricultural production; a business of itself, the sole occupation, or engrossing one of the farm, and which it should be, to make it of the highest profit. Yet, both butter and cheese making are practiced as *incidentals*, with many small farmers, and are items among the many which go to make up the aggregate products of the smaller farms in many parts of the country where miscellaneous husbandry is pursued. Almost every farmer living north of the cotton and sugar growing States, makes his own butter. Many in the planting States do the same. They always should do so where grass will grow, and Winter forage can be procured for cow-keeping. For *immediate* use, no matter where the locality, the butter is usually good, if properly made, and our directions if strictly followed, will produce the article. With cheese it is otherwise. Made in a poor grass country, or in a region where the grass is better fitted for *fattening* cattle than producing milk, the cheese will, of necessity, be an inferior article. So, too, even in a good dairy country, where cheese making is subsidiary to something else, being made in *small* quantity, it will be inferior. *We never tasted a first quality cheese from a small dairy*, unless *extraordinary pains and expense* attended its manufacture. Not that we would at all discourage the small dairyman, or household cheese-making for *family use*, but we wish to impress it most strongly upon the cheese-maker, that it is a vocation of itself, and when undertaken, requires the utmost of his skill and industry to succeed in its best possible results, as to quality and profit. Therefore, if you make the dairy a considerable part of your farm production *for sale*, make it altogether so, or to such extent that your other productions shall be subsidiary to it. We believe in the *division* of labor on the farm as much as in the factory, where it can be done to advantage, and of this every man of common understanding can assure himself in a year's time, if he will look at the composition of his soil and the cultivation practiced by the *good* farmers around him.

We have already indicated the best dairy land—so far as yet proved—in the United States. We may have others far in the northwest not yet developed. We hope so, for it is a great way and a great expense to send cheese from Buffalo, or Cleveland, to Minnesota, or Pike's Peak. To New-Orleans, and the far southwest beyond, it must inevitably go from the north, for they can not make a good article in that distant region of fervid suns, and parched grasses. Thus, then, we must husband our northern dairy soils. They possess treasures both now and for the future which we have not yet fully appreciated, and, with the great majority of their occupants, will not be fully appreciated until a still greater demand on their productions has taught them their value.

We have preached our "Sermon." We propose now to make the "application." It may be supposed that all good grass lands are fit for the dairy, irrespective of climate, and that all good dairy lands are equally good for feeding or fattening cattle. Such supposition is a great mistake, and in that mistake large amounts of labor and capital, in the aggregate, have been lost in the misapplication of both. For instance: No finer grass countries exist than large portions of Kentucky, Tennessee, Ohio, and several other western States. But they are not *dairy* lands. They are "*grazing*" lands. A bullock or a sheep will fatten astonishingly there—a bullock to an acre of Summer pasture in many cases—but there is, comparatively, as we have spoken of the *profitable market qualities* of the articles, neither butter nor cheese in that grass, while of beef, mutton, and tallow there is an abundance. In portions of Ohio, Pennsylvania, New-York, New-Jersey, and the New-England States, on the contrary, as we have already stated, there is any quantity of the best butter and cheese in their grasses, yet but little of beef, mutton, and tallow. Still, the grasses, in their species and variety, are the same—the climate and soils alone make the difference. Kentucky glories in her blue grass. Her Short Horn bullocks reared upon it, and "fed off" with their gourd-seed corn, astonish even Englishmen in our Eastern markets. Yet the same blue grass grown upon our northern hills fattens few or no bullocks at all, but produces a cheese which makes the Kentuckian's mouth water, and a butter which will go round the world and come back sweet and palatable. Understand us: by Kentucky, we mean all that broad, rich, western agricultural region, where grasses are so fertile in their animal *fattening* qualities.

This division of labor we must come to, and, indeed we are fast arriving at. Railroads have now brought our far-away western farmers into easy communication with our eastern dairymen. The cheese-maker of Cattaraugus, Otsego, or Oneida Counties, (N. Y.,) can buy his beef cheaper in the selection of a bullock from the Illinois drover at the nearest railway station, than to rear it on his own farm. He can even do so with his pork and mutton, beyond what he may incidentally feed from the offal of his dairy; and, that

the western grazier, and stock breeder, has always bought his cheese from the eastern dairies, evinces not only his good taste in the article itself but his appreciation of the right kind of husbandry in another line, for himself.

In an economical view, we consider the dairy, either in butter, or cheese, the most permanent in price of any one branch of our wide-spread agriculture. Its draw-backs, or hindrances are somewhat, to be sure; yet its advantages are many, aside from the uniformity of its income. Let us see: a well arranged dairy establishment requires a comparatively large capital in its proper outfit, embracing a wide range of land, and corresponding buildings. It demands a skill and practice in its own peculiar way. In its season, and that not a short one, it requires unceasing, vigilant attention, and diligent labors. On the other hand, its rewards are usually sure. Its products are not immediately perishable. Its labor and expenses are much less than the grain grower's. Its localities are eminently healthful—pure air and good water always abounding. Its associations are agreeable, and the finest taste in the way of improved cows, and the possession of the finest models of their race may be indulged with the strictest eye to economy. The amount of labor to be employed is regular, and not subject to sudden or extraordinary emergencies. The life of the dairyman is eminently pastoral, quiet, and retired. His gains are steady, and although not usually apt to run up to famine prices, like that of the grain, or beef and pork produce, they seldom fall to the nominal prices of grain, or meats, in an over stocked market. In fine, the occupation of a dairyman is healthful, and satisfactory.

Our position—that the pursuit of the dairyman should, on a proper soil, be that of the dairy alone—must be taken with allowance, whatever he can produce on his own farm, that his own wants require, *not interfering with the most profitable product of the dairy itself*, he should produce. If cheese be worth eight cents, or butter sixteen cents a pound, and he can not make his own beef or pork short of eight cents when he can buy it in the neighboring market for six, he should not make a pound of either, except he can do it on the "wash" of his dairy. And so in other things—even the bread for his family, and the grain on which he feeds his cows, or horses. His hay he should always cut on his own farm, as that belongs to the cow keeping department as much as pasturage.

We have said enough. With industry, and a well regulated economy, perfect neatness, system, and order in his business, the dairyman will surely succeed, soon to competence, and ultimately to positive wealth.

Save the Straw.

Reports from many sections speak of an unusually light hay crop. In some counties in the western part of New-York, and northeastern Ohio, farmers are disposing of their stock at reduced prices. An intelligent friend just returned from a visit in that neighborhood, expresses the opinion that there is not enough hay there to winter half the stock. Fortunately there has been grown this year an unusually large breadth of grain, and straw and stalks will be plenty. If these are properly secured, and fed out judiciously, they will do much to make up for the scarcity of hay. Straw alone, merely piled up in the yard without protection from the weather, and left for the cattle to run to at pleasure, will not keep them in good condition. If it be housed or properly stacked, and fed cut, mixed with a little addition of roots, bran, shorts, or oil cake, it will be eaten readily, and stock will thrive upon it. The experience of all who have used a straw-cutter, proves that it is a great economizer of food, and that the labor required to cut straw, stalks, and even hay, is amply repaid by the saving effected, and the greater value given to the feed. By cutting and steaming, the very coarsest parts of stalks may be prepared for mixture with ground stuff, and become palatable, nutritious food.

Let those who think of selling their cattle at a sacrifice, first see that all resources of this kind are counted upon; they may find the present necessity a real benefit in teaching them how to winter stock cheaply and well, almost without the use of hay.

Sulphuric Acids for Soils.—Phosphatic Guano.

A QUESTION FOR THE AGRICULTURAL CHEMISTS.

Prof. S. W. Johnson, in a recent report to the Connecticut State Agricultural Society, on phosphatic guanos, remarks: "To give an idea of the extent to which the manufacture of sulphuric acid (oil of vitriol) is carried on, I may quote a statement, recently made by a German agriculturist, who says that one-half of all the oil of vitriol now made, is applied to the soil, chiefly in Great Britain."

If we understand Prof. Johnson and other agricultural chemists, they do not attribute any special value to sulphuric acid as a fertilizer *per se*, but they recommend its use chiefly to dissolve bones, phosphatic guanos, and other mineral phosphates. Now, though we have devoted not a little attention to the practical study of agricultural chemistry, we are a little diffident in calling in question the views of those who make chemistry a profession, but there are a few questions we would like to propose:

1st.—If the good effects arising from burned bones, and the phosphates generally, when they are applied to soils, are due wholly, or nearly so, to the *phosphoric* acid they contain, how is it that these substances have, in practice, proved nearly valueless *until sulphuric acid has been added to them?* Is it reasonable to suppose that in the laboratory of the soil, none of the phosphoric acid will be available to plants, unless it is previously rendered "soluble" by the addition of sulphuric acid? There have been abundant experiments upon various crops, with *burned* bones, finely divided, to prove that the simple phosphates are nearly or quite worthless.

2d.—Simple sulphuric acid, diluted with water, *has* produced a good effect when added to the the soil. Sulphate of lime (Plaster of Paris), which contains a large amount of sulphuric acid, has often proved beneficial where no other lime compound seemed to be useful. Why then may we not attribute the valuable results from the use of superphosphates, in part, or chiefly, to the *sulphuric acid* they contain?

3d.—Admitting, for argument at least, the utility of the sulphuric acid, why would it not be better to apply it directly to the soil, diluted of course; or mix it with some unexpensive earth, always at hand, rather than be at the expense of procuring burned bones, or any of the phosphatic guanos, for compounding with it?

We are not going to say that phosphoric acid is not an essential element in plants, and of course in the soil, but we have never yet seen the analysis of a soil, good in other respects, which did not show phosphoric acid enough present to supply the exceedingly small amount found in the ashes of plants. To us it certainly appears that some chemists have fallen into a sort of phosphoric acid mania. They are so completely taken up with the theory that phosphoric acid is the *sine qua non*—the chief thing to be looked after—in cultivation, that they seem scarcely to have stopped a moment to inquire whether the common, vulgar sulphuric acid has any value of itself or not. But of this another time.

We confess to have been once quite taken up with the theories of Liebig, and other prominen chemists, in regard to the mineral elements in plants, and the value of mineral fertilizers. But our practice and study in the laboratory, and especially since we left it, have led us into a little skepticism. We distrust more and more the dicta of agricultural chemists in regard to the action of this or that fertilizer, and its specific or relative value. Nor are we alone in this feeling. Prof Johnson himself, in a recent able paper, published in the July No. of the American Journal of Science and Art, makes the following statements, which are not without significance:

"*We are every day drifting further from what but a few years ago, was considered one of the most fixed and beneficial principles of agricultural science, viz. that a substance is chiefly a fertilizer because it directly feeds the plant, and are learning from the numerous recent and carefully conducted experiments with manures, that in very many cases we can not safely venture to predict what will be the influence of a given application; but find in practice the strangest and most discordant results, it being possible to show from the experiments of the farm that almost every fertilizer in use has in some instances proved beneficial to every cultivated crop, and in other cases has been indifferent or even detrimental.*"

For the American Agriculturist.

Natural and Artificial Queen Bees.

I have recently been reading some of the writings of Prof. Siebold, relating to the reproduction of the honey bee, which go to establish Dzierzon's theory, namely, that in the production of workers and queens, connection between the sexes is necessary, but to produce drones, such connection is unnecessary. To substantiate this theory, he brings forward the case of several insects, which without intercourse of the sexes produce *females*. But since the drones are *males*, I do not perceive the relevancy of the proof.

In relation to the manner of producing *natural queens*, I hold that it is on this wise: The workers commence a royal cell, usually on the edge of the comb, and when about one third finished, the queen bee deposits an egg, leaving the workers to complete the cell. With the egg is deposited a substance called the royal jelly, which, in my opinion, is neither more than less, than the impregnated semen of the drones. This alone possesses the wonderful power of changing both the physical and nervous system of the bee; nothing collected from the vegetable kingdom could produce such an effect, it can be done only in the natural way, which the Creator has devised for the reproduction of animal life. The workers continue to feed the larvæ with the necessary food, in which the drones' semen forms a component part; when ready to change from the larvæ to the chrysalis state, they close the cell with an over-supply of the same food. When the queen is perfected, she gnaws off the cap from her cell, thrusts out her proboscis, and the workers feed her. In a few days she flies out for the purpose of having her receptacle or oviary filled with the semen of the drones, then she returns, and is capable of laying workers' eggs.

When the queen of the hive is accidentally lost

or destroyed, an *artificial queen* is supplied by the workers. The process, as given by most authors is, that the workers take the egg or larva of a worker, when not more than three days old, and out of this they make an artificial queen by preparing a suitable cell, and feeding it with royal jelly; thus ascribing to the workers the power of creating a distinct bee, entirely different in form and structure from themselves, which is a power possessed by the Creator alone. According to this theory the change of sex is produced by the peculiar food given them in their embryo state, called royal jelly.

All of the difference between the manner of making an artificial or a natural queen is, that in a natural one the cell is commenced and about one third built, before the egg is deposited, but for an artificial queen, an egg is selected from among the worker cells, and two other cells immediately surrounding it, together with their larvæ, are destroyed, and this space is made by the workers into one cell, in which their future queen is fed and raised, the change from a worker egg to a queen bee being effected by the semen of the drones.

Dr. Donhoff, a celebrated German writer, reared a worker's larva from a drone egg, which he had artificially impregnated with the semen of the drone. (See Langstroth on the Honey Bee, pp. 41, 42) Huber, by introducing some royal jelly into cells containing worker eggs, obtained queens. (Langstroth, pp. 191, 192.)

Dzierzon, and many other apiarians hold to the same opinion, that is, that this peculiar jelly, which possesses the necessary power to change the sex of the bee, is nothing more than the semen of the drone. The Creator has not caused so many drones without their use in the reproduction of their race.

I submit the foregoing for the careful examination of those who take an interest in the sexes, or the practical operations of the bee. E. KIRBY.

Henrietta, N. Y., Sept. 9, 1859.

Mr. Kirby's theory, that the semen of the drone forms a portion of the food of the royal larva, is at war with physiological facts, and is not supported by any observations with which we are familiar. It is also inconsistent with the production of artificial queens in hives, which are entirely without drones, and with the fact that the royal eggs, as seen in observing hives, are deposited by the queen without the accompaniment of jelly.

Consecutive Swarms of Bees.

To the Editor of the American Agriculturist

In the August *Agriculturist*, page 231, J. B., mentions an instance of bees swarming on two consecutive days. As I have had an instance of this kind, under somewhat different circumstances, I will give the particulars, as I wish to make inquiry. June 20th a swarm issued and clustered in two places. A neighbor was called (being absent myself) and the swarms hived in seperate hives. One returned to the parent hive in about an hour, the other is now a good swarm. Twelve days later, piping was first heard in the parent hive which continued to the fourteenth day from the first issue, when the second swarm came out and was hived. The next day (15th day from 1st swarm) the third swarm came out, was hived and is now (August 8th,) doing well. As the piping of at least two queens was heard after the third swarm left, I watched closely for another swarm or for dead queens. Nothing was seen until the next morning (16th from 1st swarm), when I went early to look for dead queens, and while there, saw the bees drag two from the hives. I afterwards found another, and witnessed a part of the deadly conflict between the 4th and 5th queens. Now as there must have been at least seven young queens raised in this hive, I would like to enquire of your correspondents if they can give the probable condition of those queen cells at the time the old queen left. I make this inquiry for information. J. F. LESTER.

McHenry Co., Ill.

For the American Agriculturist.

Marketing Grain.

"John," said a miller to his youngest son (so the story runs) "go and take toll from that last grist." "Yes sir," answered John. Shortly after, Thomas came in, and the miller sent him to see if John had tolled the grist. Not seeing John, he made sure by tolling it himself. Soon, the miller exclaimed, "I can't trust those plaguey boys," and thereupon the grist was tolled the third time by his own hands. It is easy for the farmer to guard against such *accidents*, but a tax like this upon his every grist, would be light compared with the amount he indirectly pays to those who stand between him and the consumer of his staples. As the grain business is conducted at present, the crop usually passes from the farmer, first to the local speculator, who himself, or by his agents, visits the neighboring towns and pays prices, as much below the market rates, as he can persuade farmers to accept. Shrewd and unprincipled men engaged in this business, use every effort to *bear* the local market, that is, by false quotations of rates in the newspapers, and other tricks, to reduce the price in the neighborhood where they are operating. Combinations are sometimes made by operators to control the prices to be paid in the district where they are buying, and those obliged to sell, have no alternative but to pay the extra "toll." But the grain thus purchased, seldom goes direct to the mill or to the consumer. Another, and sometimes two or three sets of dealers, one above the other, are operating on a larger scale, purchasing from the local speculators, and calculating on a remunerative profit. Probably two thirds of the grain raised, thus passes through the hands of two parties before it comes into actual use, and neither of these parties adds a penny to its value by manufacture or otherwise, although they do add to the price. It is said in defence of this class of buyers, that they bring a market to the producer's door; that the miller and those of whom the consumer buys, can not attend to gathering up the scattered parcels. Now if the farmers of every town, or of several adjoining towns would appoint a day, say, once a month when they would meet purchasers, in other words establish a grain fair, millers and others would find it well worth their while to be in attendance, and the services of middle men could thus be dispensed with. Such a plan would also insure greater uniformity of prices. Now, each individual has a kind of private corn exchange, the rates of which are controlled by his circumstances, sources of information, etc., and it is often difficult for him to know what a fair market price really is. By a combination as above suggested, producers could have control of the markets sufficient, at least, to meet the combinations made by buyers, and thus stand upon equal ground.

GRAIN GROWER.

REMARKS.—There is some truth in what "Grain Grower" asserts, but the evil is not quite so bad as he would make it. The grain buyers not only bring a market to the doors of the producers, but in the long run they pay about as much to them, as they could possibly get by any other means. The grain and flour dealers sometimes make money, but about as often lose it by paying the producer more than the future markets will bear. Take the past twelve months, for example, and you find that nine-tenths of dealers have lost money, and very many have even become bankrupt—they paid too high for their grain and flour—to the advantage of producers. There is generally a competition among buyers. We have sat upon many a load of wheat in the street, until the buyers ran up their bids for it, quite above the "reported prices." The "fairs" might do well, but there is the danger that so many sellers brought together might be apt to undersell each other.—ED.]

Letter to Esq. Bunker from his Neighbors.

[We are rather anxious for our friend Bunker. We have already printed, on the *inside* sheet of this number, page 303, a very complacent letter from the 'Squire, and we fear, he will be rather disturbed by the following letter, which comes just as we go to press. There is trouble about that "mash" (marsh), referred to last month, and to be fair, we must give the aggrieved gentlemen a chance to speak.—ED.]

TO TIMOTHY BUNKER ESQ.—You are getting people all by the hair, up here in Hookertown, which don't look well in a Justice. Them personalities must be stopped, or we shall have to put a stopper on your being justice of the pease, enny mower.

There is tew sides to all questions, and as many as tew to that *mash*. If taint a humbug, it's a grate hobby, and is bound to run itself strate intu the ground. Then, we guess somebody else will be riting funny things in the papers, abeout thare näburs, beside Square Bunker. One of 'em, a district Committee man, who knows all abeout skools, sez, that he never knew a mash yet that dident turn Injun, and he guesses Square Bunker cant work mirakles, to keep his'n from 'postatizing. He sez, that you've spent a deal of money, and it's nothing but money, that makes this mare go, as in other kases. Bimebye the tide gate will get broke, the ditches will fill up, the clover will die eout, and eel-grass begin to grow again—and some fine morning you'll be looking for that mash, and find it under water.

Jake Frink sez, that crabs, and salt water tadpoles, will be swimming all over it arter a little while. Jake feels as kross as Tophet, at being called nick-names, and we guess he ain't the only ones nuther. His son Hezekiah, that you have black-guarded so much, is gwine to marry a 'spectable widder, and he don't wan't to be nick-named, enny mower.

There's tew of your naburs, at least, who take the paper, that want this business stopped. When we inquire abeout tide gates, or enny sich like konsarns, we don't want to be maid fun of, and shant.—How would you like it yer self, Square Bunker, to have your naburs twit you abeout them long-legged boots, or that old hat, that cum deown from Noah's ark, and them other klothes, that aint exactly the rig for a justice; or abeout Kier Frink's beating you at shooting musk-rats, and he has done it menny a time. Don't you kno' yer self, that twitting on facts, riles up people dreddfully, and is like fire and brimstone on the raw flesh? Neow, ye see, Square, folks as lives in glass houses should not throw stuns. We jest want to let you kno', that we've got stuns to throw, and shal sartintly throw 'em i. you don't stop them personalities.

Verry. Detarminedly, Your Naburs,

GEO. WASHINGTON TUCKER
BENJ. FRANKLIN JONES.

Hookertown, Ct., Sept. 10, 1859.

Advertising Information—Gratis....IV.

(Continued from page 264.)

As was to be expected, the "information" given in these articles, is not relished by those who prefer darkness to light. Attempted personal abuse is poured forth without stint, and without the slightest regard to *truth*. (Some parties have already laid themselves open to "libel suits," were the game worth the powder.) One pompous little man threatens to "totally extinguish the insignificant *Agriculturist*"! Complaint is made that we are "prying into other people's business" which we frankly confess to be doing, but *only* when the public is interested in that "business." We are more than ever convinced of the necessity of these investigations. The multitude of letters, and personal expressions of approval, daily received from our readers, show unmistakably their appreciation of these efforts to put them on their guard against those who seek to take their money without just equivalent. We shall fearlessly continue the course we have begun, so long as it appears to be needed, and needed it will be until people are so far initiated into the secrets of a certain class of plausible advertisers, as to be fully shielded from their impositions.*

In a large number of instances where we have sent "stamps" or money to advertisers, no answer has been received—indeed this is the general rule, though our letters are mailed at various country post offices. Now and then we hit upon parties who *appear* to be *bona fide*. One class of advertisers we must specially caution our readers against. Here is an example:

(No. 10.)

Two parties, one in New-Hampshire, and one in Maine, advertised for one or more young men as agents at very liberal salaries. We addressed them with the required "stamps," and received in return a showbill of a reputed "Sewing Machine Company," under an imposing name. They wanted us to send $15 for a sample machine, and try our luck at selling it. If we made out well for a month, they would put us on salary at $50 to $75 per month and "all expenses paid." If we failed, we would still have a good machine cheap. Now this all appears fair; but, *first*, we are not certain that any such company exists, or that we should ever hear from our $15 again if we send it; and, *second*, we ought to have our first "trial machine" at the wholesale prices which we are assured is $10. A young man in Pennsylvania writes us, that he invested $15 thus in a Northern New-York concern, and after long trying can not hear from it, but on the contrary, he hears that no such concern is known except *within* an out-of-the-way Post-office....We have on hand many investigated cases, including large numbers of letters from subscribers and others, telling how they have been duped in sundry ways, but we have now only room for the following:

(No. 11.)

Under this number we will include a variety of advertisements, partly clipped from newspapers, and partly sent to us by several readers, which all emanate from the city of Baltimore, and from the same establishment. Some of them are signed by a man, (a "Dr."), and some by a woman of the same name. In one of these advertisements a "Honey recipe" is offered; in another a "Female Pill"; in another a "Chemical process for cleaning clothes"; another is addressed "To the Suffering and Benevolent"; another announces "Love Powders" for sale; another offers a "Bread-Making Recipe" for $1; another a "Celebrated Matrimonial Series of Books"; and so on. One reads thus:

(No. 12.)

GOOD NEWS FOR LADIES—Any Lady who will sent her address to Mrs. —— Baltimore City Md., with three 3-cent postage stamps included, will receive by return mail something of importance to her.—"WOMAN, KNOW THYSELF AND BE HAPPY."

A Lady's address, and the "three stamps," were forwarded. Under *one* of the stamps came back eight different slips of paper, partly manuscript, and partly printed. The disgusting, criminal character of part of these is such that we can not pollute our pages by a description of them. We hold them ready for the use of the authorities of Baltimore, who should abate this sink-hole of imposition and crime. We have in this case, as in others, suppressed the full address, to avoid advertising the parties to the vicious, but we hope what we have said is sufficient to caution respectable females against sending their names and "stamps" to any such inviting advertisement as the above.

(No. 13.)

HONEY! THE BEST OF HONEY—I have a valuable recipe for making Honey, which I will send to any person upon receipt of fifty cents. We make and use in our family at half the cost, and consider it as good as the best article of genuine bee made honey, "from which it can not be told." Any person who will make and sell it can clear from two to three dollars a day. It only requires 4 articles to make it, and they can be had at any store for fifty cents. Every family may have this delightful luxury, for any lady can make it in fifteen minutes at any time. Three-cent postage stamps as good as money.—Address, etc.

Who wouldn't send the paltry sum of fifty cents for such a recipe! What a luxury it will be to always have good honey, "as good as the best made by honey bees." Why, with honey so cheap, we could have company at tea every night, especially if somebody would help us to get up bread at "half price." We were rather jealous for the credit of our faithful bees, but remembering that they sometimes sting us when getting at their honey, and forgetting how often we had got "stung" in answering advertisements, we posted off the "fifty cents," and here is the recipe just as it came, *verbatim, et spellatim, et punctuatim.*

"Honey."

Take 1½ lbs. best bee honey (without comb); 5 lbs. best brown sugar (a clean bright article); 1½ pints pure cold water; 2 ounces of cream a Tartar. First dissolve the cream a Tartar in a little cold water, then put all the articles together and boil them (in a tin or brass vessel) untill all are fully melted usually from 12 to 15 minits, stir while boiling and skim the froth that may arise which may be used in the family, when cold ready for use, but improves much by age, after you once make you can use of the honey you have made to make again and so on.

Then follows a puff of the article, including the statement that this is the "best article in the Baltimore market," and it "sells readily at 31 cents the lb." But hold! what a "scrape" we are getting into. Right after the above, and on the same letter sheet we find the following ominous document.

"Baltimore City State of Maryland *s.s.*

To all whom it may concern, This may certify that "—— —— ——" (our friend's name) of "——", "—— Co." State of New-York, has this day bought the right to make, use, and sell, as much honey under my Patent as she may wish, but in no case can said "—— —— ——," give, sell, or in any way transfer to any other person the right to make said honey, without an infringement of my Patent (*this being a family* right only) and thereby render himself liable to prosecution under the United States Laws made for the Protection of Patentees, which (said Laws) will be rigidly enforced by J. P. Creager, done at Baltimore State of Maryland this 9th day of September 1859.

Attest Francis M. Creager, for Dr. J. P. Creager, Patentee."

Well, Dr. J. P. Creager, "Patentee," go ahead now and 'prosecute' the man, no the lady, as you think, to whom you sent the above. We have omitted her—his—name, but you of course know it. And see here, Doctor, while you are about it, you may as well prosecute the editor of the *Agriculturist* too, for he published the above "recipe" (with a slight variation) two years ago. See Vol. XVI, page 161 (August 1857). He then got it from another "patentee." [The proportions then given were: 20 lbs. coarse sugar, 3 qts. water, 6 lbs. good honey, 1 teaspoonful essence of peppermint, and only one-fifth ounce of cream of tartar—a better recipe than the above we suspect.]—Since then, an advertisement of the "honey recipe" has been offered to the *Agriculturist* (but refused) ever so many times, by ever so many "patentees."—You can pass on, now, "Dr." Creager, but don't go out of sight, for we are quite likely to want you again, soon. P. S.—We forgot to say, "Dr." Creager, that our friend thinks he (not she) can make money enough out of your "honey recipe," and he won't just now, take hold of those other splendid "rights," etc., etc., which you took a whole second page of foolscap to describe in such glowing terms to him.

(No. 14.)

RHEUMATISM—I desire to communicate with all, old and young, afflicted with Rheumatism, inflammatory or chronic; I have a sure and speedy cure; will send particulars. Address Dr. ——, ——, ——.

The above appeared in the "advertising items" of a weekly paper at $1.25 per line. The "particulars" were sent for. There came a long circular giving the discovery of a root which has cured sundry persons. The doctor don't tell us anything of the name of the root and we are wholly in the dark as to its real value. So we must limp along with the "rheumatics," or send him $2 for the remedy in liquid form, or in powder enough to make a quart. But we suppose this is all right. The "Dr." only promised to give "particulars," and we have got 'em, and,——are satisfied.

(To be continued as needed.)

* Some one sends us a marked copy of a scurrilous sheet, issued by one of the parties recently mentioned in these articles. Its very language and subterfuges, exhibit the real character of the writer, and the justice of what we have said of him in the connection in which he was referred to. Every point attempted to be made in his manifesto, is either sheer fabrication, without the slightest foundation in fact, or, a tortured statement of transactions, which no other person, not even his informant, would have dreamed of considering discreditable to us. With this general statement we can hardly consider it worth while to enter into controversy with one who has been, according to his own account, in constant trouble with the press, (never before with us). If any one of our readers, failing to see the character—the *animus*—of the statements put forth, should attach the slightest importance to them, we shall be happy to give him any needed explanation, and if need be, submit for inspection sundry letters that are reaching us.

Repair the Roads.

Everybody's business is quite apt to become nobody's business. Travelers through almost every section of the country find this, often to their cost, in the state of the roads. Jaded horses, broken vehicles, mud bespattered clothing, and limbs weary and sore from incessant jolts, are the almost certain attendants of any extended journey by private conveyance. But the inconvenience of bad roads to the occasional traveler is trifling, compared with the loss and annoyance suffered by residents of the neighborhood. The discouraged traveler may take the rail car, or the steamboat, but there is no escape for those living in the locality. Every visit to a neighbor, every trip to mill or to meeting, involves a loss of time, comfort, and patience, together with much useless wear and tear of running gear. Very soon the Autumn rains, and alternate freezings and thawings will render roads already out of repair, almost impassable. Do not neglect bad spots adjoining your premises, because your road-tax is already worked out, or the road-master is remiss. A day's work on the road will often save a costly job at the wagon maker's. Examine all bridges and sluices. See that there are no obstructions to water courses that will cause dangerous icy slides the coming Winter. Take advantage also of every opportunity to turn the rich wash of the road upon your own premises, and so arrange channels that it may be distributed widely, and not form an unsightly embankment near the fence where it empties into the field. Let every body see that his business in this respect is attended to, and then nobody's will be neglected.

"NEW AMERICAN STYLE OF ARCHITECTURE" AS PROPOSED BY MESSRS. SAELTZER & VALK.

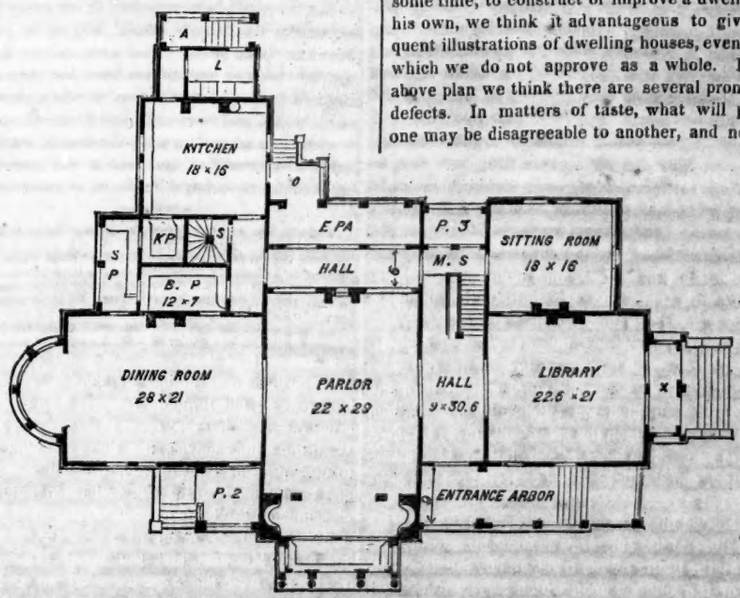
The design, presented herewith, is furnished to us by Messrs. Saeltzer & Valk, "architects of the Academy of Music, Astor Library, etc." The design did not strike us favorably at first, nor are we greatly pleased with it after a closer study. The fault may, perhaps, be in our own want of due appreciation, and we therefore give the architects an opportunity to lay their plans before the public, for approval or condemnation, as the result may be. With a few unimportant verbal changes and omissions, we give the architects' own claims and description:

"The conception of a new style of architecture is a matter of considerable importance to the architects among our own countrymen. Why should we not have a style of our own, truly American in its characteristics, though it may not be entirely new? The noble minds of the Grecians produced a grand and noble style; the luxury of the Romans one of magnificence; the Arabians a fantastic and romantic style; the English a style equally as characteristic of the people; and yet *we*, with all our ingenuity and love of progress, are yet unable to acknowledge a style of our own. After four years of study of the different styles, and extensive travels in other countries, we submit the above design as being as near an approach to an exposition of American life as architectural forms can represent. The Italian order was taken as the foundation, but revised to suit the different purposes and wants required. We do not attempt the impossibility of originating an entirely new style, but simply to modify former styles so as to harmonize with the life of our countrymen. We wish it understood that the above is only one example and one plan.

DESCRIPTION.—The external general architectural appearance is shown in the elevation plan above. By reference to this, with the annexed ground plan, it will be seen that the entrance is through an arbor and enclosed piazza, leading to the main hall which communicates with the parlor, library, and sitting room. The main staircase is in the rear of the main hall. The parlor has a beautiful bay-window in front, and a communicating hall, and an enclosed piazza on the rear which has steps to the garden. The communicating-hall leads to the dining-room and kitchen. This location of the dining-room and kitchen disconnects them from the other rooms. The dining-room has the various conveniences, such as the butler's pantry, enclosed piazza, (marked *P 2*), a sitting place (*S. P*), etc. The kitchen has pantry, laundry, rear entrance, and servants' stair-case, all distinct from other parts of the house. The dimensions of the principal rooms are all marked on the ground plan below.

On the SECOND FLOOR, are six bed-rooms—each having closets and a separate communication—two bath-rooms, one for the family, and one for servants. The second floor rooms are similar in size to those on the first floor, the smallest bed-room being 18 by 14 feet. It will be observed, by reference to the plan, that we have given a series of beautiful views through the interior of the house; and also the important requisite of draughts of air through all the rooms. With all the comforts and conveniences combined, this house can be completed for $6,000. The greatest economy in the construction has been constantly kept in view in the conception of the style."

REMARKS.—The study of this plan, like that of every other one, however perfect or faulty in itself, will be useful. One can scarcely examine any plan carefully, without discovering some useful hint; and as almost every person expects, at some time, to construct or improve a dwelling of his own, we think it advantageous to give frequent illustrations of dwelling houses, even those which we do not approve as a whole. In the above plan we think there are several prominent defects. In matters of taste, what will please one may be disagreeable to another, and neither person be able to tell exactly why he is pleased or displeased. Thus, in the elevation plan, above, the roof of the main or center structure appears too flat, or too heavy, or too scolloped at the edges—something about it leaves an unpleasant impression. The cross-piece and scroll-work at the gable, and the upright "bed-post" would be better left off, we think. The cupola, for some reason does not appear to stand in the right place.



GROUND PLAN.

The pillars and mouldings around the front windows, appear proportionally too heavy. The large double windows at the right end of the library wing, with two others around the corner very similar, and especially the two smaller square ones on the *same* side, do not harmonize. Indeed, this is the case with the whole front. The commingling of arched and square windows and entrances destroys the harmony. But we are not professed critics in matters of architecture, and therefore will not attempt further remarks, as we have no room for a discussion on the part of the architects. So all we will say is, that, individually, we do not like this *proposed* new order of "American Architecture." But *if* it harmonizes with the general feelings and tastes, it will come into vogue, notwithstanding.

As a matter of practical utility, the great number of angles, side roofs, and sub-roofs, is objectionable. They invite leaks, and involve constant repairs. So many outside doors are also undesirable. One front entrance, one in the rear, and one side entrance, are enough for any ordinary house. Respecting the ground plan, the architects claim some advantages which are real, but are on the whole counterbalanced. The large parlor runs back "into the dark," it being lighted mainly at one end. The parlor in the center of the building is out of place; it is the least used room, and yet is placed between those most used. To reach the oft frequented dining-room from the sitting-room or library, without going directly across the parlor, requires a circuitous route and the passage of at least four doors. A "sitting" or family-room should be in the vicinity of the kitchen, that the mistress of the house may be able to, at least, keep an eye over the working department.

Blinks from a Lantern.....XII.

BY DIOGENES REDIVIVUS.

AN EMIGRANT FARMER.

One is apt to suppose that nomadic life disappears with tents, and the introduction of fixed abodes upon free homesteads. But so far as this continent is concerned, there never was a greater mistake. The farmer of to-day, in the older States at least, is hardly more settled than the red man, who tilled his patches of maize, and hunted buffalo upon the same soil, three hundred years ago. The lodge of the Indian has disappeared, and the light of his council fires has gone out, but a race quite as restless and nomadic has succeeded him. The wanderings of the aboriginal tiller of the soil were in some measure checked by the limits of his tribe, and by the fixed habits of the animals upon which he relied for food, as well as by the very narrow limits of the fields he cultivated. He dreaded labor, and it was too much trouble to clear up new lands. The old fields devoted to corn were never suffered to relapse into forest. Every planting season brought them round to the same locality to put in the seed, and the necessities of the crop kept them in the neighborhood until it was harvested. The salmon and shad made their appearance at the falls of the rivers about the same time every year, and thither they flocked to gorge themselves with fish, and to lay in Winter stores. The buffalo and deer were fat in Autumn, and this was the season for the grand hunts that called all the tribe together for the yearly reunion. Thus the Indian roamed within narrow limits, and though his tent was movable, his homestead was permanent, and he looked forward with confidence to a resting place among the graves of his fathers.

But his successor puts up a permanent home, calculated to last for several generations, and often sells it before the putty has had time to dry and harden in the windows. He opens new fields in the forest, gathers bountiful harvests, grows discontented with plenty, and sells out before the stumps have had time to rot in the new clearing. Sometimes he moves into the next parish upon a farm not half as good as he sells; and again, he starts for the shores of the Pacific, with unwavering faith in cabbages of a hundred pounds weight, individual beets measuring a bushel, and potatoes a dozen to the cart load. He has more curiosity to see the monster vegetables, than the nuggets of gold, though the latter are not to be despised if they come in his way. He quits old associations, the homestead, the familiar hills, the school, the church, with as little regret apparently as he leaves home on a journey of a week.

This spirit of unrest, so characteristic of the farming population of this country, is as active now as ever, though the form of it is somewhat changed. Once it was a final venture, to plunge into the wilderness in search of a new home. It was a long toilsome journey of months, by the slow ox team, carrying all the goods and chattels, an exodus from Egypt from which there was no return. A thousand miles of forest, and bad roads and bridgeless rivers, constituted an impassable gulf that the emigrant never expected to recross. He went on in search of a dwelling place, until sheer exhaustion or some providential hindrance brought him to a stand. There he built his log cabin, and located.

Now he is able to spy out the land, and make choice of a home from actual observation beforehand. Four days take the traveler from almost any point on the seaboard to the plains and forests of Kansas and Nebraska, at less cost than half of the weary journey fifty years ago. It is not a last venture, now; for should the qualms of homesickness overtake him, or his wife, the same iron steed that bears him into the wilderness will bring bim back again, his fortunes little impaired, and his soul enriched with an experience better than money.

These facilities for traveling, and the ease with which a bad move may be retraced, are among the causes that bear our sea-board population westward. From Maine to Florida, there are hundreds of planters and farmers who are gathering their last harvest upon their present acres. With the falling leaves, the ties that bind them to their present fields of toil, will be dissolved, and the opening Spring will find them amid fresh clearings on the bottom lands of the Red River, and the Arkansas, or on the prairies in the valies of the Missouri and the upper Mississippi. A chapter from the experience of an emigrant may not be unprofitable to some of the multitude whose faces are turned toward the setting sun.

Jeduthan Sawyer was a regular born Yankee, dwelling upon the coast of Rhode Island. At the age of thirty, he was in possession of a hundred acre farm somewhat worn down, but so near the sea, that he had the means of reclaiming it, and making the whole as rich as a garden, at small cost. He owned, at least, a half mile of beach, on which, every Autumn storm threw up great quantities of kelp, eel-grass, and other sea weeds. On the west side of his farm, a cove ran up for a long distance, and every low tide laid bare acres of mud several yards deep, the accumulated deposit of the sea, and of a fresh water stream. He had the best facilities for making manure, and a good market for every thing his farm could produce, within three miles of home. He was doing pretty well, making a good living and saving something every year, yet Jeduthan grew uneasy, and wanted to do better. Some of his neighbors had gone up into Connecticut and settled, and sent back wonderful reports of the cheapness of land, the extent of the forests, and the chances for smart men to make their fortunes.

He sold out, and went into one of the border towns, where none but a farmer accustomed to the hardest of soils could see any good land. He bought a farm of three hundred acres, running in debt for one half of it. It was better for the dairy, than for any thing else, having rocky pastures well supplied with living streams. Three years of hard work got the pastures all cleared of brush, and the buildings in good repair. His wife made excellent butter and cheese, and he could get two cents a pound more than any of his neighbors. But he soon discovered that he had not capital enough to carry on so large a farm, the interest money bothered him, and his family grew more rapidly than his substance. The fifth year he sold out, and bought a small farm in one of the vallies of Vermont. He had around him some of his old friends and neighbors, the land was a good deal better than any thing he had ever worked before, and for a time, everything seemed to go smoothly. He could raise as much corn to the acre, and nearly twice as many potatoes, and oats, and wheat, of the best quality. But Jeduthan missed the ready market for his small truck, poultry, lambs, veal, apples, peaches, and pears, to which he had been accustomed in the manufacturing districts, near the shore. He could stand it only two years among the Green Mountains, sold out, and moved to the hills of Otsego, out west of Albany. This was a charming grazing country, all the hill sides luxuriant with white clover, abounding in springs and clear cold streams. This was a paradise for dairywomen, and such cheeses as Mrs. Sawyer turned out of her hoops, were an astonishment to the natives. They sold beyond the market price, but still much below what they would have brought in New-England.

After considerable figuring, Jeduthan discovered, that he had hardly so much ready money at the end of the year as he was wont to have in his first home by the shore. Nothing but money would pay up the interest due on his farm, and at the close of three years he pulled up stakes a fourth time and started for Ohio.

Recently, I was out in Illinois, and had occasion to stop over night at one of the villages. In the edge of the evening an emigrant train of three wagons drove up, and who should alight, but Jeduthan Sawyer, my old acquaintance of twenty years ago, with his wife and eight children, with all their earthly substance bound for Kansas! He had owned and worked eleven different farms in twenty years, had moved fifteen times, and, like other rolling stones, had gathered no moss. Jeduthan was seedy, and his wife more so. Tears stood in their eyes as they spoke of New-England. My lantern has not shone upon a sadder sight.

Sir Joshua Reynolds being asked how he would personate *folly* in a painting, replied that he would represent a man climbing over a wall at

the risk of breaking his neck, with an open gate close by, through which he might walk with ease and safety.

For the American Agriculturist.

The Bright Side of "Egypt."

This name, given to the southern section of Illinois, is as familiar as "Household Words," in all the Northern States. It has been pictured as a land of swamps; where frogs, mosquitoes, and malaria are the chief products, where people barely live long enough to die; the few remaining alive, being a set of heathens, who have had brains just sufficient to vote for Gen. Jackson, for the past twenty years. But the fine crops and general prosperity of the people are fast attracting attention to Southern Illinois, and dissipating its unfortunate reputation. Geographically considered, it is a most important section of country, being bounded on the North, by the Ohio and Mississippi Railroad, on the East, by the Wabash and Ohio Rivers, on the South, by the Ohio and Mississippi, on the West, by the Mississippi, beside being divided through its center by the Illinois Central Railroad. Its latitude is favorable, escaping the cold Winters of the North, and the long continued heat of the South, while it has direct access to the three great markets of the West, Cincinnati, Chicago, and St. Louis, and also with New-Orleans, at the South. The northern part of "Egypt" is well divided between prairie and timber; the southern part is mostly covered with timber, excepting where openings have been made for farms. It is quite broken with the exception of the bottoms. So far as health is concerned, the higher lands are as salubrious as those of New-England. Immense beds of coal underlie much of this southern part of the State, and promise a glorious future for this portion of the Mississippi Valley, when a union is formed with the iron ore of Missouri, which is about being consummated by the new process of working iron. In Randolph County alone are seventy thousand acres of coal lands.

The soil of Southen Illinois is of a lighter color than that of any other part of the State, and in some places too much clay prevails, but at other points, the soil at a depth of eight feet, after being exposed to the action of the frost and atmosphere one year, will produce fine crops of any kind; of such are the bluff lands on the rivers, having a reddish tint. For quality of wheat, the timber lands of "Egypt" will bear away the palm, though occasionally a greater yield is had on the prairies. For a corn crop, Central Illinois leads any other part of the State, with the exception of the great American Bottom opposite to St. Louis, though the whole of "Egypt" brings fine crops of corn if the land is plowed deep and properly tilled; while her level lands are better adapted to tame grasses than the deep black soils—partaking more of the nature of the celebrated blue-grass lands of Kentucky. For the certainty of the wheat crop in the timber lands of southern Illinois, I found some farmers who had grown twenty good paying wheat crops in succession, and those who had been less fortunate attributed their losses to their own neglect.

The bluff lands and high ridges in "Egypt," near the railroads and rivers, will make elysiums for fruit growers; in fact, there is no business connected with the farm that will pay better than fruit growing in this part of the State, and in time it will tell a tale of success and become justly noted, as it will have the St. Louis, and up river, Chicago, and Cincinnati markets at command; while these same high lands further back from roads and rivers make fine homes for sheep.

The greatest objection to the Central and Northern part of Illinois, is the too frequent subsoil of blue clay which holds every whit of water that falls, until it evaporates, instead of allowing it to leach off, which makes the land cold and wet in the Spring; and the large prairies, making it cold and bleak in Winter. The prairies of "Egypt" also have too much of this clay. All the good points and facilities are not centered in any one section of country, but as a whole and without the slightest personal interest to warp my opinion, I should settle in Southern Illinois, for farming purposes in preference to any other portion of the West; and this, too, after four years' experience in western life, during very little of which time I have been stationary. I am no fancy farmer, but have had the muscle, backbone, and head experience, and would not picture an Eden any where; and if any one should for a moment imagine that Paradise is located in "Egypt," the idea would soon be dissipated by a visit to the country. It has hitherto borne a bad reputation for health of body and of soul, but its future will be as bright as the past has been dim, and for the next ten years no part of the West will show a greater progress. Many Germans are settling in this portion of the "Sucker" State, and make most excellent farmers, and are fast getting wealthy. Much of this section bears a New-England aspect, but with a far milder climate. Many of the so called "barrens" that are covered in part with timber, with a little labor in clearing out the under brush, make most excellent sheep ranges, as there is fine grass growing all through the timber. Wheat, fruit, and sheep, or wool growing will be the leading features of Egypt.

L. G. Chase.

St. Louis, August, 1859.

For the American Agriculturist.

Are you going to the Exhibitions?

Rustic life is too apt to become *rusty* life. The faculties are not kept bright by contact with others, and much of life's enjoyment is lost. The almost necessary seclusion of farm life is one of its disadvantages. When men are shut up—each in his own little circle of observation, and having absolute dominion, they are in danger of becoming narrow in their views, and conceited in their opinions; and this more than almost anything else, hinders progress in agriculture. "I don't believe in book farming," is still a common expression among those who scarcely understand what they mean by book-farming, and too many unproductive fields bear witness to the truth of the assertion. The motto proposed by "Punch," for the building in which the "World's Exhibition" in London, was held a few years since, was expressive: "*It is a good thing to have the conceit taken out of us.*"

Farmer Blunt boasts that he has always stayed at home and minded his own business, and has plowed and sowed as did his fathers, year after year, until he has come from force of habit to feel that there is but one way, and he knows that way perfectly. If he can be persuaded to attend an exhibition, he will soon find that there are many things his philosophy never yet dreamed of. Under the influence of the good feeling which a large assembly inspires, he will be much more ready to hear and attend to the new ideas advanced, than if they were brought to him in his own little kingdom at home—especially when the fruits of improved culture are present to sustain these opinions and compel his admiration. "There may be something in it after all" he exclaims, as he wonders at the report of the committee on the best farm, which report details the various methods of culture and their results. "Eighty bushels of corn per acre" is an argument whose force he can feel, and the leaven of a new idea thus obtained will work good results.

There can hardly be a more appropriate manner of closing the agricultural year than by the exhibitions of the produce of farm and household industry, and it is well that these exhibitions have now become so general. The partial release from severe labor which this season brings, is itself an occasion of rejoicing, and it is natural and fitting that the invitation should be given and accepted, "Come, let us make merry together." Were no other end to be gained but the promotion of sociality, we should urge upon all to attend the annual gathering at the farmers' festival, the agricultural exhibition.

The managers of these exhibitions have been censured, justly perhaps, for the introduction of features that have made a mere show of what ought to be of a very different character. It may perhaps be said in their defence, that they resorted to questionable means for securing a large attendance, only because there was not interest enough in the community, in what is really beneficial, to sustain the enterprise. Their choice was between a good exhibition, where improvements were to be brought forward and their merits canvassed, coupled with the prospect of a slim attendance and debt incurred, which they must *pocket*; or the addition of the race track, female equestrian display and other "taking" things, which should make it "pay." Those who have done nothing to support the County and State Societies and their exhibitions, ought not to complain if the officers resort to such measures to sustain themselves. If half of those who cultivate an acre of ground would attend the exhibition as a matter of duty, as well as interest, taking with them the best of their produce, there would soon be very little complaint of mismanaged societies and useless shows. Let this year's exhibitions show by the full attendance given, that the farmers consider these institutions as their own, and the managers will rejoice to make them what they should be, both the signs and the source of agricultural improvement.

Get Ready for the "Census Man."

Next year will occur the great decennial Census of the United States, made by the General Government. Persons will be appointed for every locality in the States and Territories to gather statistics of the inhabitants, and of all the agricultural productions, manufactures, etc. Every cultivator will be asked for a concise, accurate statement of land occupied by him, the number of acres and the amount of each crop raised during the year ending next June, etc. Those who were called upon in 1850 doubtless remember the difficulty experienced in making up an accurate report of the various crops. As these reports will be called for in June, it will be necessary to give in the crops gathered this year, and the suggestion we would now make is, that cultivators write down, while fresh in mind, the number of acres under cultivation, including the wheat, etc., already gathered. The number of acres of each kind, the amount per acre, and the gross amount, will be required. The milk products also, and the amount of pork, beef, etc., will all be asked for.

Grasshoppers are degenerating in Virginia They have begun to chaw the tobacco.

How to make a clean sweep. Wash him.

Written for the American Agriculturist.—Prize Articles.

Farm Fencing.....VII.

In addition to the several kinds of permanent fence we have already described, there are several others of a *movable* character, but which may be made permanent by substantial bracing. Such fences may be conveniently and economically adopted for the division of fields within the outside enclosures of the farm, or even for outside enclosures themselves, where breachy cattle, horses, or swine, are not permitted to run at large.

Of this kind of fence we have seen and examined several different patterns, most of them patented, pretty much the same in the *principle* on which they are constructed, but varying in the *mode* of making the *panel*, and connecting the panels together. Some of these we propose to present to the reader, with illustrative engravings, which we have ourselves got up without the knowledge or assistance of the patentees or their agents. In the descriptions we have adopted, in part, the language of the patentees. We think that in some little item or two, we could improve almost every one of these models, but it would be only in the insertion of a brace, now and then, from the top of the fence to the ground, to give them more strength to resist the winds, or the assaults which might be made upon them by unruly animals.

These varieties of fence are simply of boards, with the addition of now and then a joist or plank, as the plans of some of them will show. They require no posts set into the ground, and only braces at occasional distances to keep them in place. They will conform to the ordinary inequalities of ground, where it is not cut up by the too frequent interruption of sharp hills and gullies, and with a flat stone or wooden block under each joint, or connection, to raise them from contact with the ground, they will keep sound from decay many years.

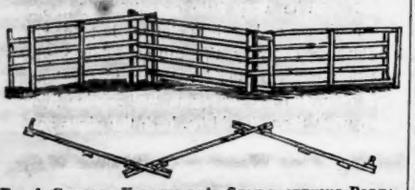


FIG. 1. CHARLES VANDEMARK'S SELF-FASTENING PORTABLE OR FIELD FENCE.

This was patented June, 1857. The inventor says his design was to construct a cheap but durable fence, which could be readily set up and taken down, and when put up, should not be liable to derangement by the falling out of keys or wedges, from exposure to winds or unruly cattle, or boys. He says: "....This fence is so simple in its construction that any farmer can make it, as the only tools necessary are a hand-saw and hammer—thus obviating the expense of procuring a carpenter, as is in most cases necessary in the construction of other portable fences. It is made in separate panels, which are so constructed that, when put up, the fence is a perfect self-fastener, without the necessity of either posts, clamps, keys, wedges, or any other appendage, and combines more strength and durability than any other portable fence yet introduced. The panels are made with four or five boards or rails of equal length, the top and bottom rails projecting more or less according to the angle desired. Two battens or cross pieces are required at each end of the panel—one across and fastened to the end of the two projecting rails, and the other at the end of the middle rails—being fastened to all the rails with sufficient space to receive the batten of the opposite end of a corresponding panel, which forms the lock at the other end of the panel, the middle rails projecting with the first batten across their ends, and the other crossing at the ends of the top and bottom rails.—These two end battens are placed on opposite sides of the panel, being reversed at the two opposite ends of each.—When put together and strained lengthwise, the end batten of each panel catches on to and binds on the second batten of the next panel, and thereby each corner becomes its own fastener and support, capable of bearing any amount of strain consistent with the strength of the material used in the construction of the fence.—This is designed for a zig-zag or worm fence, but for small enclosures, if desired, the same panels by a different mode of locking can be put into a circular form, or can be drawn into a straight line and supported by temporary posts or stakes, at suitable distances to hold it in an upright position... It is recommended that the panels be constructed of full 1 inch boards, 5 inches wide, and 14 feet long—cutting 4 feet from each board to make the battens; 2½ or 3 inches is wide enough for the end battens of each panel...."

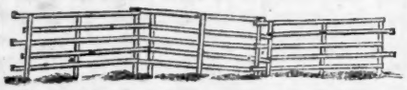


FIG. 2—ROBINSON'S SELF-FASTENING PORTABLE OR FIELD FENCE.—Patented April, 1858.

Portability, cheapness, very little lumber, and of the cheapest quality—and ease of building and putting up are claimed. The stability is secured by putting it up in a serpentine or worm fence, and locking each panel into the next one, thus described by the patentees: "....Across the end of each panel is fastened a cross bar, and beyond this cross bar each alternate horizontal bar projects, as seen in the drawing. Those bars, however, which project at one end of the panel do not project beyond the cross bar at the opposite end, but each horizontal bar alternating with those in the first set, does project, and ends as does the first in a projection. The lock is formed simply by a block or cleat nailed on the opposite side from the end cross bar, leaving a space between the two, of about five inches, which space may be more or less according to the desired angle. The separate panels being thus constructed, the fence is put together as follows: As only the alternate bars project beyond the end cross bars, alternate spaces will be left to receive the projecting ends of the bars of the next panel. These two sets of projecting bars being then crossed and passed through each other, as seen in the drawing, the two panels are drawn as near into a straight line as possible, when the projecting blocks on the ends of the projecting bars, will catch on the cross bars, and the fence will be rendered firm and secure. Other panels being added, any length of fence may be put up in a short time. A fence five boards high, four inches wide, and twelve feet long, will require 37 feet of lumber, for a straight rod—which at $10 per 1000 would cost 37 cents per rod."....Directions are also given for adding pickets to the panels.

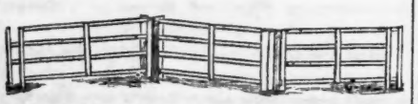


FIG. 3—A. B. & M. VANDEMARK'S REVERSIBLE LOCKING PORTABLE FIELD FENCE.—Patented Sept., 1858.

Special advantages are claimed generally, and particularly because the panels can be adapted to square or round pens, and straight or zigzag fences. The inventor says: It has "....the most complicated lock, is constructed in the simplest possible way, the rails all of a length, the battens all on the same side of the rails, and the panels all alike, which obviates the difficulty that arises in making and using all portable fences, that the panels are required to be made in pairs. In constructing this fence, if either of the corners, shown in the drawing, are preferable, you will obtain the preferred corner, by placing the battens of the unpreferred corner on the opposite side of the panels. It is recommended to use plump inch boards 4 or 5 inches wide, and 14 feet long, cutting four feet from each board to make the battens. The angle is regulated by the space between the end battens, which should be about twice the thickness of the lumber, the end batten should be the width of the space between the battens when required to be used for a straight fence. When used for a straight fence, it is supported by a brace, constructed of the same material as the Fence, and in the form of a triangle, the sides of the brace lap together over the top of the fence, notched in the peak, and also in the centre of the base, to admit the ends of the panels."

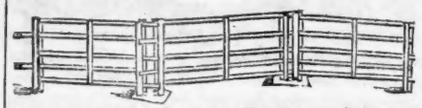


FIG. 4.—CARHART'S PORTABLE ZIGZAG, AND STRAIGHT FIELD FENCE.—Patented March and Sept., 1858.

Security, adaptation to uneven level ground, cheapness, easy construction in Winter under cover, and by any one who can use a hammer and saw, etc., are claimed for this. The following is the inventor's description:

"The sections or panels are constructed of boards of any desired number, length, width, or thickness, although 5 boards 12 feet long, 4 inches wide, and 1¼ inch thick, will be found most desirable. The rails project beyond the batten alternately, from 5 to 6 inches, as the thickness of the battens and rails may require, and in these ends a groove is cut at one end of the panel on one side, and on the opposite side at the other end. The grooves are cut at such a distance from the battens, and of such a depth, as to give the fence the desired angle. When put together and strained lengthwise, the groove in the end of each panel hooks on the batten of the adjoining panel, holding each in a firm and substantial manner. The shoe or foundation is constructed of plank, with a triangular piece fastened on the top so as to fit between the battens of the panels, in such a manner, as to prevent them from slipping. In cutting the grooves, the distance should be 3½ inches from the center of the groove to the battens, and they should be so cut that every two adjoining panels should be pairs, that is, if laid one upon the other, the grooves should face each other at one end, and be opposite at the other end of the panel

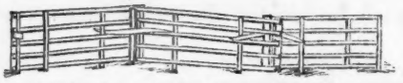


FIG. 5.—GARLICK'S PORTABLE FIELD FENCE.

Patented May, 1857. The patentee claims "to have invented and constructed a fence without posts set in the ground, at a cost for material of only forty to fifty cents per rod, and which, for durability, simplicity, and cheapness, is believed to defy all competition. It is made in sections or panels, in such a manner that it can be set upon the surface of the ground, and as well where the ground is rough and uneven, as where it is level. It is so constructed, that there is no strain on the nails, and the boards are so bound and held by means of keys and battens, that it is impossible for them to be torn off. Such is the perfect method of fastening the corners, that it can be strained to the ground in so substantial a manner, as to obviate the danger of its being blown down by the wind, as has heretofore been the case with portable fences. It can be readily opened at any panel, rendering gates unnecessary. It can easily be set up in circles or squares, forming excellent stock-pens, as well as temporary inclosures for sheep, etc., and as it is taken down and put up with little difficulty, must meet a very general want, and come into general use."

FIG. 6.—WEST'S PORTABLE AND STATIONARY FIELD FENCE.

Patented Feb. 15, 1859. The inventor says: "It has been his aim to make as cheap a fence as can be made, and have the same durable, completely locked and self-supported, without the use of posts, keys, wedges, pins, or bolts; and at the same time so simple that any ordinary farmer can make it. There is no framing, morticing,

or boring required. Any man that can drive a nail and saw a board, can make it readily and quickly. It will be seen by the engraving that the fence can be made of either four or five boards of equal length, and any required width. I would recommend to make the fence of five boards, 12 feet long and 4 inches wide, which with spaces 4, 6, 8, and 10 inches, make a panel 4 feet high; saw boards of the same dimensions into three equal lengths for battens. Nail a pair of battens at each end of the panel, 8 inches apart, so arranging the boards, that the top and bottom board shall nail to three of the battens, reaching to the *end* batten at one end, and only to the *inner* batten at the other, and nail the three intermediate boards to the *inner* batten at one end, and *both* battens at the other. To strengthen the panel, and prevent its rocking and working the battens loose by handling, nail a diagonal batten or brace, about 6 feet long, across the center, and the panel is finished. To support the fence, make a jack of three pieces of board, 4 feet long, setting one up edgewise for the base, and nailing another to the center for an upright, and the third for a brace, nailed to both, as seen by the small cut. It is of remarkable simplicity of construction, and corresponding cheapness of cost. Very little lumber is required, and the boards and battens being all of uniform length, except the oblique ones, there is no waste, and but little work in making it, while the principles involved in the method of combining and securing the parts, make it a much stronger fence than many others containing double the quantity of material. It is readily taken down and put up. It can be set up in any desired form, from a triangle to a circle, oblong, or square, and any panel can be taken out for a temporary drive-way. To secure it more firmly against pressure from wind or other causes, drive a hooked stake down on the base of the jack."

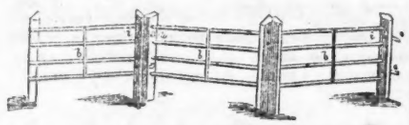


FIG. 7. PRINDLE'S SELF-SUSTAINING AND PORTABLE, OR HURDLE FENCE.

These panels are held together by small iron pins or keys which pass through the posts (the posts are made of common 3x4, or 4x4 joists) as shown in the cut. But as no description is given with it, we can only state the fact. The writer has examined the small wooden model shown us by the patentee, from which it appears to be a good, practical fence.

In addition to these seven different models we have seen another, unpatented, we believe, yet an excellent kind of fence—not in movable panels like them—but for a permanent fence, and dispensing with the ground-inserted-post, a substantial one. It is simply the common board fence, as already described in our last article, with an *above-ground* post instead of the *inground*, in this wise:

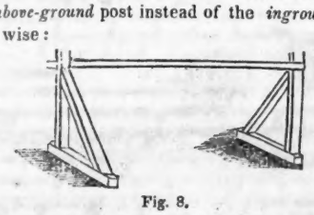


Fig. 8.

These posts are in three parts, or pieces made of 3x4 joists, or 2x4, according to the strength of the wood of which they are made. The sill is 2½ or 3 feet long, resting on a couple of thin stones or blocks on the surface of the ground. Within 3 inches of one end the upright post is spiked on to the sill, as high as required for the fence. From the top of the post to the other end of the sill is spiked on a brace. The front of the sill, post, and brace, is reversed at every other panel, which gives a support of 5 or 6 feet, including both sills, as the length of sill adapted will admit. These panels may be of any length, from 8 to 16 feet, which the builder may choose—the shorter the stronger, however. Ten to twelve feet in a locality not extraordinarily windy will answer. This is a *straight* fence, while the other models we have given are zig-zag, more or less, or made nearly straight by the additional braces given to them.

One great advantage which these styles of fence have, with the exception of the last, is that they can be made indoors in Winter, and in rainy days when out door work can not be done, and carried out and laid up with great rapidity when required. We believe in *portable* and movable fences. Almost every farmer requires, at times, a sub-division of his larger fields into smaller ones, and a changing of their shapes and sizes. These kinds of fence will permit him so to arrange them at short notice, and small expense. We express no preference in any of these models, although we could make a choice for our own use.

The Roller.

The roller, though seen but comparatively seldom in use, is one of the most serviceable implements for farms and gardens. On soft, loamy soils, abounding in stones too small for gathering up by hand, it is very convenient to be able to sink them below the surface with a roller. They will then be out of the way of the scythe and the reaper when they sweep over the fields gathering in the precious harvest. How much time this will save in scythe grinding, and how much ill-temper, the tiller of the soil need not be informed. Every farmer knows that the roots of his clover and grass are often thrown out of the ground by frost, and if not killed, are much weakened in growth. Passing a good roller over such fields in the Spring would settle those roots back into the soil, and cause them to start vigorously. The roller is useful also in leveling down all the little hummocks made every year by frost and other causes, and so keeping the surface smooth and handsome. On soils that are very wet and adhesive, it should be used with moderation, but on all others it may be used with great benefit. Fields on being sown with grass seed or grain are much improved by the roller. It breaks down the lumps left by the harrow, presses the soil finely about the newly sown seed and ensures its rapid germination. It sinks the loose stones below the surface, and leaves the ground in a better state every way for harvesting.

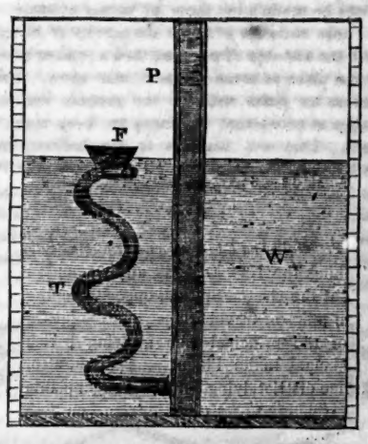
For the gardener, the roller is scarcely less useful than for the farmer. It is hardly possible to make a good lawn and to keep it in proper order without this implement. It levels inequalities of surface, it keeps the roots of grasses in their place, and gives the turf a smooth, velvety look which it can get in no other way. It is very useful, too, in making gravel walks, and in keeping them smooth and hard throughout the season.

Farm rollers can be made of logs. These should be cut in two sections, each about four feet long, with iron bands around the ends to prevent splitting, and strong shafts running through them, to which the frame-work, etc., for drawing it are to be attached. They are sometimes made of narrow planks, two inches thick and four inches wide, forming a sort of drum. They are also made of cast iron. Those made of planks are larger than the log-rollers, and can be drawn easier. They generally need some extra weight in the box above them. Those who have tried each sort, prefer the cast iron. They are made in several sections, for ease in turning about, and ease in draft. They almost never wear out, and are always in working order.

Garden rollers can be made by any one skillful with tools. A round log with a handle to it, will answer; but a plank-drum is better; a granite roller is still better; and a cast-iron roller is best of all. These last can be bought at any agricultural store. Our own experience in the use of the latter has confirmed our views of its great value.

Ornamental Gateways.

M. W. Phillips, Hinds Co., Miss., writes that he has an ornamental gateway of his own designing, somewhat like that described on page 229 in the August *Agriculturist*, but made without inarching. It is formed by trees of the "Wild Orange," which are set about six feet apart. These are kept pruned from side branches, up to the hight of six feet; above that, the limbs are trimmed to form an arch, the tops also being cut to circular form. The trees are now about 15 years old, and the branches are closely interlocked, forming a very ornamental, natural arch. An ingenious person could vary the shape of such a gateway to suit his taste or the location.



Getting Pure Water from Sulphur Wells.

Mr. Elihu Cox, of Randolph Co., Ind., suggests a plan of drawing pure water from wells impregnated *at the bottom* with sulphur or other impurities. The annexed engraving from a sketch sent by him, will illustrate the proposed method. *W*, is a section of the well; *P*, the pump; *T*, a flexible tube of India rubber, Gutta percha, or other pliable substance; and *F*, a wooden float to sustain the upper end of the tube near the surface. The theory is, that the water impregnated with sulphur is heavier and remains near the bottom of the well, while by this arrangement only the surface water enters the pump. This plan may be somewhat effective, but we suspect that the constant ascending and descending currents in all bodies of water would keep the sulphur pretty equally distributed. Experiments alone can fully decide this question.

Trenching.

In this, as in many other things, extremes meet. For several years past, the exhortation of every book and journal on agriculture has been, *trench, trench!* And the exhortation has been heeded, with results both good and bad. Persons who have trenched or subsoiled in an intelligent manner, have always found it beneficial. Others who have overdone it, or done it blunder-

ingly, have found it injurious. The latter have not only broken up the subsoil, but have brought it to the surface in large quantities and buried the rich top-soil in its place. The consequence has been, that their plants, trees, or crops grown in this cold, stiff ground have been almost a failure. And the failure has been all the more provoking because of their high-raised expectations. Many of these unsuccessful cultivators have become disgusted with book-farming, and now denounce every new thing recommended. All they now wish to know or to practice is, "the good, old way."

Now, is not this as foolish as was their hasty and thoughtless adoption of trenching? Trenching, properly understood, is generally, the simple breaking up of the stratum of soil next below that which is commonly plowed, and then returning it to its place. It does not necessarily mean the bringing of it to the top. If the ground is well broken up to a good depth, and perhaps a little manure or some light opening substance mixed with it, this will tend to make it porous and warm, it will allow the surface water to pass off, and the roots of plants to descend, if they so require. In the case of old, worn out soils, especially in gardens cropped for generations with the same vegetables, it is well to bring up occasionally to the top a little of the virgin soil to keep up the strength of the surface. This should be done, however, only just so fast as it can be pulverized and ameliorated, and made fit for the purposes of vegetation. With these qualifications our motto still is, "Trench, trench!"

How Rice is Grown and Prepared for Market.....I.

Prepared by an Editor sojourning at the South.

Taking the New-Orleans and Opelousas railroad, at the Gretna Station, opposite to the city, fifteen miles of travel brings you to Saint Charles, one of the principal rice growing parishes in Louisiana. In the Plaquemine parish, also, there is a rice district, lying below the sugar plantations, and extending thirty miles or more on both sides of the river.

THE RICE REGIONS

are by no means confined to these parishes, but it is here that we find the largest rice plantations. There is hardly an acre of soil in the whole Delta that could not be profitably cropped with this grain, and should Cuba ever be annexed to this country, and the sugar trade of this State be transferred to that island, as it assuredly would, the cane plantations would eventually all become rice fields. There is a vast belt of country, extending a hundred miles from the Gulf and several hundred miles across, and far into Texas, that is better adapted to rice than any other crop. It is the unanimous testimony of those who are engaged in this business in this region, that it is more healthful than the cultivation of cotton and sugar, the periodical flowing of the lands checking the malaria; and that it is entirely free from the malignant diseases which make the Atlantic rice districts so destructive to life.

Rice can be grown, profitably, in all the Southern States, and if the miserable policy of growing only one thing upon a plantation, is ever supplanted by an economical husbandry, this crop will form an important item in the produce of every plantation that can command water for flowing. There are millions of acres all along the Mississippi, and its branches below Memphis, better adapted to rice than any thing else, and should the demand ever be made, they can produce enough of this article to feed the world.

The Atlantic rice district, though yielding nineteen twentieths of all that is produced in the country, is a much smaller territory, lying along the coasts of the Carolinas and Georgia. For a distance of fifty miles inland, cypress swamps and marshes are the almost uniform scenery. These are flanked by a narrow sand bar or beach, through which there are occasional inlets, giving access to the tide, which twice a day dams the fresh water streams, and floods the lagoons and swamps. The soil of these swamps, when once reclaimed, is of extraordinary richness. The great rivers, swollen with rains, bring down from the mountains their mineral treasures, and the vegetable spoils of the forests along ther banks. Every tide brings in the silicious wash of the sea, and the rich silt of the salt lagoons, and thus we have the alternate deposits of the rivers and the tides, and such a mixture of mineral, animal, and vegetable substances, as can hardly occur under other circumstances, by natural agencies. The result is a deep, rich soil, which only needs reclaiming, and the systematic flowing required by the wants of this crop, to keep it in the highest state of fertility.

CLEARING FOR A RICE PLANTATION.

Whoever has seen a Cypress swamp, with its strongly buttressed trunks, and its endless succession of knees and knobs, understands something of the nature of this work. The favorite location is one adjoining the main land, or the sandy islands which are left nearly dry at the ebb of the water. It must be nearly level, or slightly inclined toward the natural channels, through which the tide flows; and it must be so far from the sea that the water will not be brackish, as salt is poisonous to this crop.

Having laid out the boundary of the plantation, the first business is to clear the timber and brush for about three rods in width along this line. A ditch is then dug, and an embankment formed with the excavated earth, which shuts off the tide water, and gives the laborers undisturbed possession of the inclosure. Inside of this, a permanent embankment, or levee is made, to resist the heaviest floods. It is usually five or more feet high, and fifteen broad, and all wood and stumps are carefully removed, to guard against accidents from holes left by their decay. The earth for this levee, is mostly obtained from a broad ditch inside of the levee. This canal answers the purpose of transportation, as well as irrigation.

As the levee-ing goes forward, the trees are cut, or girdled, all over the inclosure. The trees and brush are drawn into piles for burning, and at a dry time in Spring, they are fired, making enormous bonfires, in which the negroes take great delight. They are not, however, all consumed, and charred stumps and logs, and the rotting, girdled trees remain for many years, the naked skeletons of the once noble forests.

The cleared land has several sub-divisions, to facilitate the work of flowing, and for convenience in tillage. The lines of these divisions are formed by ditches and embankments of smaller size than the main ones upon the outside. Commonly, the levees are seven or eight feet wide at the base, and about three feet high, with ditches of corresponding size, and a space of eight or ten feet all around between levee and ditch. Every field must be furnished with a trunk and gate, to let in and pass off the water, at the pleasure of the cultivator. At high tide, any one of the fields can be flooded, without flooding the others; at low tide, it can be drained, and remain so as long as the crop demands. The fields are sub-divided into small lots of a half acre, or less, each, surrounded with small narrow ditches called "quarter ditches." When the gates are open at the fall of the tide, the water runs out rapidly from these minor drains into the outside ditches of each field, and from these through the field trunks into the canal, or the main embankment ditch, and from this through the main trunk into the river. A tide gate at this point, prevents the return of the water, unless it is artificially lifted.

From this plan of a rice plantation, it will be seen, that those nearest the sea, can not always be drained at the most fitting time, on account of long continued high tides, while those most remote from it, in case of long continued drouth, can not be flowed, on account of low water in the river. These are also liable to an untimely overflow in case of freshets in the river. These facts in regard to the location of the plantations give rise to the terms

"FRESHES" AND "SALTS"

in the vernacular of the rice districts. In time of a great flood, there will be more or less of the plantations, that can not be drained for some days, or weeks perhaps, and if this occurs at a critical time of the crop, it is greatly damaged—and the event is noticed in the commercial and broker's reports. On the other hand, in time of drouth, the rivers are low, and the salt water is carried up further than usual, by the tides. If this happen in the time of flowing, the plant is killed outright, or greatly damaged. It will be seen from this fact, that rice is no more sure than the other great crops of the south, sugar and cotton.

PREPARATION FOR SOWING.

On most of the plantations, this is still done with the rude clumsy hoe, which is the usual accompaniment of negro labor. The first process is termed "chopping" which turns and mixes the ground about three inches deep, and is a very poor substitute for plowing, if this were practicable in such soft land. The hoeing process is repeated, as near to the time of sowing as possible, when all the clods are crushed or mashed fine, and this is technically known as the "mash."

The planting usually commences the latter half of March, where the state of the land allows it. The first operation is the opening of the drills, which is here termed "trenching." They have narrow hoes for this purpose, about four inches wide, making drills the same width, about two inches deep, and thirteen inches apart. The most skillful hands in the field set the first trenches, making them as straight as possible, and far enough apart to allow of two drills between. The common hands follow, making the intermediate trenches. The accuracy with which these guide rows are laid out, with the eye only to direct the strokes of the hoe, is truly surprising.

As fast as the trenches are opened, light hands, women or boys, follow, sowing the seed. It is scattered thickly over the whole breadth of the trench, so that it takes from two to three bushels to sow an acre. Other hands follow immediately, covering it lightly with their hoes, and completing every field on the day it is begun.

GUINEA FOWLS A PROTECTION TO THE POULTRY YARD.—A. J. Farnham, Bucks Co., Pa., writes that Guinea Fowls are nearly a protection against the depredations of hawks in the poultry yard. When one appears they set up their peculiar clatter which alarms the hawk, and he leaves without his dinner. This may be so, but we should prefer the music of one old musket to that of a dozen guinea fowls for this purpose—yea, one of them.

For the American Agriculturist.

The Rogue's Gallery—Foul Seeds.

In the City of New-York, and some other large places, I believe, there is kept by the police what is called the "Rogues' Gallery," in which are preserved the daguerreotypes of criminals of various grades, who have been detected from time to time. Its use is quite apparent, and many of these gentry are kept in check, or found when wanted, by means of these pictures. The cultivator can take a hint from this institution. In his fields are many depredators, vile weeds, that teal in, often in company with the good seed he is sowing, and purloin the fat of his land, to the serious damage of the crops and their owner. Let each farmer and gardener make a collection of seeds of the various weeds that infest his locality, label them distinctly, and preserve for examination and reference, until so familiar with their appearance, that he can recognize them at a glance, in any company. Then he may depend on his own eyes when he visits the seed store, and secure himself from the disasters occasioned by the ignorance, carelessness, or dishonesty of dealers. To make this plan fully effective, seeds gathered thus in various localities, could be exchanged by means of Farmers' Clubs or otherwise, and thus all be on the look out for the arrival of any new and unwelcome visitors. A. D. M.

Tim Bunker on the Shadtown Parsonage —and a Grandson.

Mr. Editor:—I told you at the time we fixed Sally out for housekeeping, that I should probably have something to say about the young folks after the wedding, when the writers of stories generally say good bye to their heroes. I did not think then, that I should have any thing special to say so soon, but this is a fast age of the world, and any writer who keeps up with the times, will not have a chance for his ink to get dry in his quill.

Mrs. Bunker and I were sent for last week, to come down to Shadtown and make a visit, not thinking at all what honors awaited us. Shadtown lies on the river, a few miles from here, and is one of those homely names that stick to a place forever. They have a good many such names up here in Connecticut, and the folks, or at least a part of them, seem to glory in them, as if they were the right things in the right place. They were suggested by the character of the country, or by some incident in their early history, and the necessity of a change has never been felt. Break-neck hill took its name from its dangerous character, and from the fact that a man was once thrown from his wagon and killed there. Hard-Scrabble is a very poor, rough region, and both men and animals have to scrabble to get a living. Bean Hill was so called from the fact that that esculent grew in great perfection in the vicinity, and was greatly delighted in by the inhabitants. It was the invariable Sunday morning breakfast, the year round, and to professors even, was a reliable indication of the day. Tradition relates that the Deacon was once sadly misled by the failure of his usual dish, the bean bag having been exhausted unexpectedly. He had already ground his scythe, and would have gone to mowing, but for the timely remonstrance of his good wife. This may have been a scandal, but the bean eating is still kept up by the people, in all its early vigor.

They undertook to alter the name of the place some years ago, and call it Myrtleville, but they could not make it go. The old inhabitants said that "beans grew there and Myrtles did not; and they could not see the use of putting a name to a place that did not belong to it." Bean Hill they could see the reason of, for every body in the place ate baked beans, and the crop was natural to the soil.

Shadtown was so called from the abundance of that fish caught at the landing—a name handed down from the first settlement. It is a staid parish, and the people boast that they have never dismissed a minister. A few have filled up their half century of service, and all have died among them. They are about as proud of this, as they are of the name of their place. Shadtown was the name given by the fathers, is honorable, and is therefore to be honored, and had in reverence, for all coming time. The man that should propose to change it to Tivoli, Arno, or any other euphonious name would be mobbed, if that thing were possible in this Commonwealth.

At the time Josiah was settled here a couple of years ago, the people made a stir, and built a new parsonage. The old building had stood over a hundred years, and had accommodated their last three ministers. The good old practice of furnishing the pastor with a parsonage, and glebe, has always been kept up here. As the country filled up with people, and land became more valuable, they sold off a part of it, but there are still ten acres left of this fat valley land, and I guess better soil does not lie out of doors.

They built the new parsonage a little nearer to the meeting house, setting it back further from the road, and throwing a part of the fruit trees into the front yard. They made the house every way convenient, put in a furnace, a range, a bathing room, and all the fixings that a woman needs to keep house easy with. They enclosed a large yard, nearly an acre, with a nice fence, and planted it with evergreens and shrubs, so that it looked about as inviting as any house in the village.

It was curious to see what a great variety of fruits had been planted in the garden and orchard, by the good men who had lived and died upon this spot. There is about an acre devoted to apples, and some of the trees, I guess, are a hundred years old, for they have been old trees ever since I can remember. Then there are perhaps twenty old pear trees, and a good many younger ones, just beginning to bear, to say nothing of the dwarfs that Josiah has just put out. All the small fruits, currants, gooseberries, strawberries, raspberries, and blackberries, have their appropriate place. Grape vines run along the sides of the barn, and on arbors built on purpose for them. Plums seem to flourish here, the soil being a little clayey. The peaches have declined, though there are the remains of famous trees, at least forty years old. There are cherries and quinces in abundance, and along under the wall, pie plant and asparagus enough to stock the neighborhood.

I learned, from Josiah, that his predecessors had been in the habit of doing this, the parsonage garden being a sort of free nursery for the parish. Seeds of flowers and vegetables, and grafts, and young plants of the smaller fruits were freely distributed every Spring; so that almost every garden in the parish had its mementos from the parsonage. It was a literal sowing of good seed on good ground, for it almost always bore fruit to the minister's advantage, as well as to the people's. The whole region is noted for its good fruit, mainly originating from the parsonage. The finest peaches I have ever seen in any of the markets came from Shadtown. The parish has always been remarkable for its peaceful character, and for its religious prosperity. The unselfish example of the minister seemed to be contagious, and there was a "provoking to love and good works," not always manifest among good people. The minister took an interest in the bodies of his people as well as their souls, and diligently looked after their temporal prosperity. All appreciated these labors, and somehow, what he said on Sunday struck in all the deeper, for what he did on week days. The children might not understand his theology, but they did understand his strawberries, and thought that the doctrines that kept such company were good enough for them. The hardest points in the catechism were taken on faith, and Shadtown has always been as orthodox as it has been peaceable and united.

Now, I am not much of a philosopher, but I guess the characters of the past ministers, being lovers of good fruit, as well as of good men, have had something to do with the prosperity of the parish. Their theology grew where their fruit did, in the open air, and sunshine; and I guess light, and air are about as necessary for sermons, as they are for strawberries. Bad digestion makes a man's thoughts about as sour as his stomach, and the acidity of the pulpit often leavens the whole parish.

The folks in Shadtown say that Josiah is walking in the footsteps of his predecessors, only a little more so, that he gets all the new pears and strawberries, and as soon as he finds they are worth cultivating, he sends them out to his neighbors. I found John's milking stools had come in play, and the butter and cheese which Sally had made with her own hands, were about equal to any thing we have in Hookertown. Mrs. Bunker says, that she will have to own beat on housekeeping and butter-making, but it is much safer for her to say that, than it would be for any body else—in my hearing. She was very much pleased with her visit, but most pleased with her first grandson, whom they have named, "Timothy Bunker Slocum." Whether the child, or its name made her absent minded, I am unable to say, but I noticed her spectacles on wrong side up, twice in one morning, and that the knitting was entirely forgotten. Yours to command,

Timothy Bunker, Esq.

Hookertown, Ct., Sept. 1, 1859.

Give the Boys a Chance.

One of the surest methods of attaching a boy to the farm, is to let him have something upon it *for his own.* Give him a small plot of ground to cultivate, allowing him the proceeds for his own use. Let him have his steers to break, or his sheep to care for. The ownership of even a fruit tree, planted, pruned, and brought to bearing by his own hands, will inspire him with an interest that no mere reward or wages can give. In additon to the cultivation of a taste for farm life, which such a course will cultivate, the practical knowledge gained by the boy will be of the highest value. Being interested, he will be more observant, and will thoroughly learn whatever is necessary for his success. Another and equally important advantage will be the accustoming him early to feel responsibility. Many young men, though well acquainted with all the manual operations of the farm, fail utterly when entrusted with the management of an estate, from want of experience in planning for themselves. It is much better that responsibility should be gradually assumed, than that a young man should be first thrown upon himself on attaining his majority.

Diet cures more than the doctor.

APPLE GATHERING—From a Painting by Jerome Thompson.

Above we present an original engraving from a painting by Jerome Thompson, the designer of the picture entitled "The Last Load," published in the *Agriculturist* last month. This scene, even more than the previous one, shows the familiarity of the artist with farm life, and also his happy choice of subjects for illustration. An apple orchard in full bearing, the tempting fruit blushing among the foliage, or covering the ground with a profusion of golden "nuggets" such as no mine can yield, has a fullness of beauty, which, while it charms the eye, appeals not less successfully to other senses. The artist has treated his subject truthfully. There is none of the hurry and bustle which characterize the labors of the farm earlier in the season; the work is not pressing, and affords employment in which the female part of the household may find an agreeable change. The introduction of the two figures in the foreground is suggestive. The one seated upon the basket appears to be a visitor, very likely a citizen who has escaped from the tiresome din of the town to enjoy a season of rest in the country. The attention given by the group near him, seems to indicate that they are much entertained by the marvels he is relating, the younger female, particularly, being so engrossed as to entirely forget the workman above, who seems rather impatient at this interruption of his work. Perhaps he is uneasy at the interest she manifests in the stranger.

The light hazy clouds overspreading the sky, and the smoke slowly ascending from the quiet farm-house in the back ground, tell of those delicious Autumn days when the softened sunshine tempered by the Autumn breeze, both soothes and strengthens the physical frame, so that but to live, is a luxury.

The farm-house with low gable and double portico, the long well sweep and "old oaken bucket" present little to attract the eye of the architect, but the ample wood-house adjoining, the tidy farm-gate, and the adjacent orchard are indications that it is a home of comfort. The ample rooms, well filled cellar, and capacious fire-places (the lungs of the house) give a breadth of simple and natural enjoyment, which make the wanderer, however successful, sigh for his old "New-England Home."

A full supply of fruit for Winter use adds immeasurably to family comfort. Who does not enjoy sitting around the fire on a Winter evening, eating nuts and apples and telling stories! The housewife too, finds it easy to furnish the table with delicacies when apples are plenty. Many who have abundance of this fruit in Fall and early Winter, fail to keep a supply until Spring, simply from want of proper care in gathering and storing it. The apples are shaken from the trees, picked up and laid in heaps, or put in barrels or bins in the cellar, the bruised and defective ones left with the rest, and sorted over only when it is discovered that a large part of them are decaying. A bruise on an apple is a fatal injury, sure to result in its loss. All fruit intended for keeping should be hand picked, and sorted, only sound specimens being allowed in the general store. The remainder should be kept separate for immediate use. Apples when first gathered have a superabundance of moisture, being part of the sap, not appropriated by the fruit. This in a few days passes to the surface, and the fruit is said to sweat. If they are barreled up before this process is complete, rot will be speedily induced, and the fruit lost. They should be spread thin in some cool place under cover until dry, then placed carefully in barrels without straw, and kept in a dry place at as low a temperature as may be, without freezing. Some prefer placing them in barrels at once, leaving one head out until the sweating is complete. Treated in this manner, they may be preserved through the entire season until Spring fruits come in.

Plant Fruit Trees.

Plant them *now*, as soon as the frost has nearly stripped them of their Summer foliage, and in three or four years golden rewards may be reaped, in yellow, juicy apples, and luscious, mellow pears, to say nothing of the stone fruits. The latter are more safely planted in Spring; but do not wait until Spring to set out apple and pear trees. The present is a more leisure season, a better selection can usually be made, and the tree is in its place and ready to start into growth at the ordinary leafing time in Spring. It can also better withstand the drouth of midsummer than when planted in Spring. Perhaps the only exceptions to successful Fall planting are, first where the soil is wet and the contractions and expansions of superabundant moisture destroy the root fibers; and second, in the case of tender varieties which are liable to winter-kill. A tender tree moved in late Fall can not withstand the extreme cold and sudden changes of Winter like one which has been unmolested. On this account it is usually advised to plant peach, nectarine, apricot, and sometimes tender plum and cherry trees, in Spring. A few of the late growing and tender sorts of apple trees may also be left until Spring in the northern States; but with the majority of trees, and especially in this latitude and southward, Fall planting may well be commenced with the fall of the leaf.

No universal "directions" for setting out trees can be safely given. As a general thing, it is

better to give all trees and plants abundant depth; to prepare the soil under them so that they can send down roots where moisture will always abound, no matter how parched or dry the surface soil. To secure this it is advised to dig a large *deep* hole and fill with rich surface soil. With a single, but very common exception, this rule is a good one. We refer to those localities where the subsoil is clay or hard-pan of so compact a texture as to retain water. Even on these the large-deep-hole method is best, if proper drainage be provided; but in most cases tree planters will not take this trouble or expense. If on such retentive soils the tree be planted in a deep mass of rich earth, its roots will be invited downwards, and they will literally stand in a basin of water. We advise, therefore, that in planting trees, the soil in which they stand be loosened and prepared only to the depth to which it may be kept free from standing water. If a thin surface soil rests upon a retentive subsoil, break up the latter as deeply as possible by subsoiling, and loosen it where the tree is to stand but little deeper than elsewhere. A deep porous soil is always best for fruit trees, but such a soil can not be found in every locality, and where not found, let it be imitated by preparing the soil at hand as deeply as may be. If plowed nine or ten inches deep, and subsoiled six or seven, it will then be loosened fifteen or sixteen inches deep, and the hole for the tree may be made to that depth, filling it always with surface soil naturally rich, or made so by the addition of rotten manure, or muck, decayed leaves, etc. We have this week examined apple and pear trees fifty to a hundred years and more old, which stood over a clay subsoil, but the roots were spread out in the surface soil thirty to sixty feet in every direction. Usually these old trees are found on limestone soils, loose and porous deeply down, and they are most frequent upon knolls, hillocks or slopes, having a dry, deep, loamy or stony subsoil.

On wet soils good success has been attained by preparing the ground, setting the tree directly upon the surface—no hole being dug—and then placing soil around and upon the roots, up to the collar or point where the soil reached in the original locality. The tree then stands upon or in an artificial hillock, and sends its roots out into the dry surface soil thus prepared. A general rule may be stated thus: Plant the tree on as deep a soil as possible, but avoid putting it where its roots will be far down in a barren subsoil beyond the reach of air and warmth, surrounded with stagnant cold water.

In transplanting all trees, they should usually be planted only as deep as they grew in their original positions. Heaping the earth around the trunk higher than this often proves fatal. In planting in holes, let there be ample room for the roots to be spread out naturally, and drop in the loose soil around them, packing it down carefully.

That Wonderful Tree in Oregon.

Much was said, several years ago, about a new and beautiful tree, then lately discovered near Olympia, in Oregon. Travelers declared that it resembled the pear-tree somewhat in foliage, but had a clean, smooth trunk like the orange-tree. The upper side of the leaf was polished and a little oily to the touch, and the foliage was fragrant, like bergamot. It had flowers resembling the white jessamine. The trunk, branches, foliage, and flowers were all such as to recommend it particularly for planting on highly finished lawns and near the windows and doors of a house. One of its most remarkable characteristics was that it was an evergreen. A broad-leaved evergreen tree growing in a cold climate! It was said to be not a very common tree in that vicinity, and was not known to exist elsewhere.

What has become of this famous tree? We have searched for it in a multitude of nursery catalogues, in vain. Has any one got it? If it actually possesses the excellences claimed for it, the nurseryman who should bring it out would realize a handsome fortune from its propagation and sale.

Laying Out Grounds.

Several months ago, we discoursed upon the "Choice of a Site" for a country home; and later, upon the "Preparation of Ground" for planting and building. We now propose to add a few words upon the Laying out of Grounds.

And here, we frankly say, that if any one of our readers has no time or *taste* for such work, he would do better to employ a professed landscape gardener to do it for him; since all we can say will not supply so great a deficiency. But it may be presumed that most of the readers of the *Agriculturist* have some tastes of this sort which they wish to cultivate, and that they consider their time well spent in improving their homes.

For the sake of definiteness in our remarks, we will suppose that the grounds to be laid out, are from one acre to four or five acres in extent, such building-lots being common in the outskirts of our villages and towns, as well as on country farms. The position of the house within the premises will be determined somewhat by circumstances. If there is a rise of ground upon it, only a short distance from the street, that will undoubtedly be the best spot for the house, because it will afford good drainage and a good view of the surrounding country. If the ground is level, the

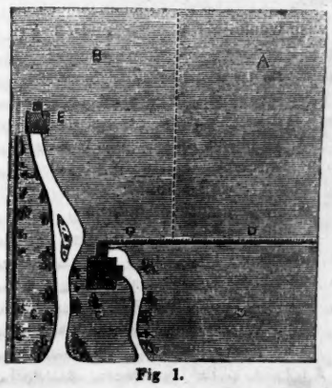


Fig 1.

A, Fruits—*B*, Vegetable Garden—*C*, *C*, *C*, Ornamental Grounds—*D*, *D*, Hedges—*E*, Stable—*H*, House.

house may be set near the street and near one corner, so as to devote the other side to ornamental planting, and the rear to fruit trees and kitchen garden; or it may be set near the middle of the front line, but retired several rods from the street. The sketches herewith may just indicate the two styles. The first (fig. 1) is quite common among the English, the other (fig. 2) prevails more in this country. Whatever method is chosen there are certain general principles always to be regarded.

First, it is important to give one's house and the premises an air of protection and seclusion. If they are swept by every rough gale in Winter and Summer, and if they are open on all sides to the gaping curiosity of every passer-by, they are sadly wanting in some of the important features of a *home*. Therefore, let the place be encircled with trees and shrubbery, deciduous and evergreen commingled—not stiff rows like a battallion of soldiers, but waving lines, now running up close to the boundaries, and now out into the premises, now high trees, and now low, and of all sorts together, just as they are seen in natural landscapes. We by no means advise the planting of trees so as to hide any desirable views of neighboring scenery. Set them thickest where there are no views worth saving, and where there are offensive objects visible, and where the winds blow most violently. Even on those sides where the views are finest, they may be skillfully set so as to form picture-frames for the landscape. For it should be remembered that a fine view is more striking when seen through a vista of grand trees in the foreground, than when it lies unrelieved, in one flat, monotonous scene. Nor, let it be forgotten that a house and grounds are more interesting to the spectator, when seen only in snatches and at favorable points, than when all is spread open to the sight at once, for the imagination always pictures greater beauty in what is concealed. It is an excellent plan to surround one's premises with a hedge, to be kept the usual hight of a fence. If the right kind of hedge-plant is chosen, it will often be more economical than any other kind of fence. It is at least very desirable on the score of taste, as it may be so managed as to conceal the exact limits of one's premises, and to give an appearance of indefinite extent to the pleasant scene it encloses. To secure this effect, flowering shrubs and low trees should be set, here and there, in masses near the line of the hedge, to relieve its stiffness.

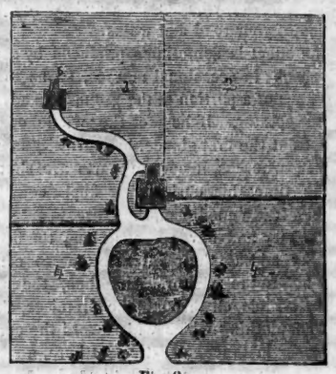


Fig. 2.

1, House—2, Fruits—3, Vegetable Garden—4, 4, 4, Ornamental Grounds—5, 5, Hedges—6, Stable.

Having planned the boundaries, let us now take another step. A carriage road and a walk will be needed from the street to the house, and to the garden and out-houses in the rear. Walks may also be wanted to lead to a flower-garden, and to other parts of the ornamental grounds. As a general rule, these should not be laid in straight lines, because they will not harmonize with the graceful forms of the foliage, nor with the general air of ease and freedom of gardenesque scenes. And besides, if the carriage road is to be used frequently for heavy teams, it will, if straight, be more liable to be cut up into ruts, than one which is a little curved. (A little reflection will show *why* this is so.) Yet even straight roads and walks are more sensible than the zig-zag, perpetually winding lines sometimes seen in fashionable grounds. Both extremes should be avoided. Of course, these roads and walks should be made thoroughly. It will not answer to spread a little gravel over a rich mold full of the roots and seeds of weeds, to be a perpetual annoyance to the proprietor. The top soil should be taken off, at least six inches deep, the space filled with old bricks, or cobble, or broken stone

and covered with gravel, the last coat being quite fine. A heavy roller drawn frequently over the surface will make it firm and smooth.

In setting out trees, we advise to plant sparingly and well. Many country places are planted like orchards, in rows, or like the wild forest, with just as many trees as the space will hold. But we ought to have something beside shade: we want frequent open spaces for lawns, where the smiling sun may shine in, where grass will grow well, and where shrubs and flowers will bloom. By all means, leave such spaces, and group your trees around them at unequal distances. Here and there, set a few choice trees singly, with ample space to develop themselves on all sides. Have a care, however, not to set trees in the face of your fine prospects. Shrubs and low trees may be set here and there by the margins of your road and walks.

A fine effect is sometimes produced by setting large shrubs in occasional masses, so as to conceal views of a portion of the grounds in advance of the spectator. If he sees the whole of your premises at the first glance, his curiosity is sated at once; whereas, if certain parts are shut out for the time, his curiosity is kept constantly awake. It is a good plan, therefore, to set groups of shrubbery and low screens along the borders of walks and at their intersections, to conceal views before the visitor. And then, the walks, as they ramble on through the premises, should lead to something which will reward the curiosity—as, for instance, a rustic seat here, a sundial there, a vase, a statue, a fountain, a bed of flowers, etc., etc.

But the subject of our essay expands, and our space diminishes so rapidly, that we must defer the conclusion to another time.

For the American Agriculturist.

Dwarf Pears.

The extensive failure of pears on the quince stock, is leading some cultivators to inquire if there has not been some radical error in their mode of cultivation. A common practice among those who have taken special pains with their trees, has been to dig holes five feet square, and three feet deep, and then to fill them with a mixture of rotted sods, stable manure, bones, ashes, plaster, night soil, etc., etc. Trees so planted have sometimes succeeded, but very often have failed. Many cultivators now claim that this is an irrational mode of treatment. When a tree is first set out, they affirm, it is in a suffering condition: it has been rudely torn from its native home, and wants time and quiet to recover itself. Why commence stimulating and over-taxing it at once? Let it have at least one year to heal its wounds, and regain its lost strength. After this, manure may be applied in sufficient quantity.

And then, instead of the deep holes, and the deep manuring, it is now claimed that nearly the opposite treatment should be given. Spade or plow to the usual depth for good tillage, and set but the tree as we do a currant bush. Put no manure in the bottom of the hole, and, least of all, animal manures. Keep the roots near the surface; they will strike as deep as is for their good. If the roots are set deep, and are encouraged to strike lower still, the buds will start earlier in the Spring than the climate will warrant, thus producing leaf-blight; and then in the Fall, the warmth of the lower soil will continue the growth of wood so late, that it will not ripen off well before frost sets in; this will tend to produce frozen sap blight. The tree ought to be in a state of repose for several weeks before Winter sets in.

As to manuring, it is held that it should all be applied on the surface. This is nature's way. Laid on the surface in the Fall, it protects the roots from severe frost, and may be forked in slightly in the Spring. A little more applied in Spring, becomes a good mulching for the Summer. This manure, as it gradually decays, sends down its fertilizing properties to the roots in a liquid form—just what nature demands—which is far better than putting gross, exciting substances directly in contact with the roots. An excellent compost for pears and other fruit trees may be made of burnt or rotted sods, mixed with stable manure, which, when thoroughly decomposed, may be treated with a little salt and lime or potash. For a simple mulch, coal ashes are sometimes used with good effect.

How to promote Fruitfulness in Barren Trees.

To the Editor of the American Agriculturist:

Many of your readers are not aware that "heading back" fruit trees is productive of fruit; as well as a similar treatment to "the running vines," of which mention is made in the August *Agriculturist*. The check given to the extension of the limbs, by removing the ends of vigorous shoots, concentrates the sap in the limbs, which causes them to prepare fruit buds. Let the "querist" who asks "what he shall do for his plum trees, etc.," try this plan, and not "cut them down," but "spare them another year"; if they are trees of a vigorous growth, I doubt not that he will be satisfied with the result. It has now become so late in the season that they may not prepare for the production of fruit next Summer, but they certainly will the following Summer. This method of concentrating the sap, besides being productive of fruit in barren trees, will also cause young trees to bear much sooner than they otherwise would. DAN. STECK.

For the American Agriculturist.

Protect the Roots of Trees.

Most trees in this latitude will receive benefit by Winter protection. Nature provides this in forests by depositing the leaves which have formed their Summer clothing, upon the ground beneath which most of the vitality is stored in the roots. They form a loose covering containing much air, thus securing several degrees of warmth to the surface below. In addition to the benefit thus derived, the decaying of the leaves supplies a top dressing of the best kind of nourishment for the future growth of the tree. Stable manure affords good protection, but is not so well adapted for affording nourishment. A compost in which leaves form the largest proportion, spread liberally, at least an inch deep, over the whole surface under the tree, to be forked in the following Spring, will be highly beneficial. A tree may live and grow without these precautions, but its thrift will be greatly promoted by observing them.

The Concord Grape at the South.

It is gratifying to learn that this grape is succeeding well at the South and Southwest. Perhaps no one not pecuniarily interested in its sale will claim that it is a first class grape for the table; it is inferior in flavor to the Diana, Delaware, Rebecca, and even the Isabella, and Catawba. Yet it must be acknowledged to rank only a little below these grapes, and for hardiness and prolific bearing it is scarcely excelled.

It is now being tried for wine-making, and so far as we have seen and heard, the result is favorable, the wine having a very agreeable, fruity flavor. As an eating grape and for wine, it is better at the South than at the North. The German vine growers in Missouri have taken it in hand, and are much pleased with it. A Mr. Husman, from Herman, Missouri, writes to the St Louis Westliche Post, as follows: "The Concord grape yielded this year (1858) for the first time with me, and seems very suitable for our climate; fruits admirably, large bunch and berry, ripens a fortnight sooner than Catawba, good flavor, and is the only kind in our vineyard which was not touched at all by rot or mildew. In a few years, I think I shall have a good many Concord grapes in the St. Louis market, and am pretty sure that they will fetch twice the price of Catawba."—A Concord vine we planted three years ago, at our place 12 miles east of New-York City, is now bearing abundantly, and the fruit is about ripe, while the Isabella, near by, has scarcely changed its color. The *Hartford Prolific* Grape standing by the side of the Concord is quite as vigorous and fruitful, and the two are ripening at the same time. We can scarcely choose between them, but think in flavor there is a slight difference in favor of the Hartford prolific—to our taste.

Root Structure—Physiological Curiosity.

In a recent article in the Gardener's Chronicle (London), it is very pertinently argued, that sufficient attention has not heretofore been given to the nature, laws of growth, and requirements of the roots of plants. While the branches, leaves, flowers and fruit have been thoroughly studied, the parts upon which these depend in a very great degree for their support, have been allowed to seek their living, and contend with their enemies, almost without the aid of science, at least so far as it might throw light upon peculiarities in their structure, and requisites arising from such peculiarities. Recently, however, the subject appears to be exciting the interest of vegetable physiologists. The Chronicle announces a new discovery made, in pursuance of researches in this direction, by parties engaged independently in their investigations, viz.; Professor Henfrey in England, and Messrs. Garreau and Brauwers, in France. It says: "One thing seems to have been already made out by these careful observers, namely, that the growing point of a young root is always protected from injury by a natural guard.

It has long been known that in certain plants the end of the roots is covered by a kind of cap or hood, within which the process of growth is carried on. Of this the common Duckweed offers a familiar example, which any one may see with the aid of a pocket lens. Another, on a far larger scale, is to be found at the end of the stout aerial roots of the Screw Pine(*Pandanus*), in which it looks like a great brown cup. It now appears that the structure in question is general, not exceptional. Mr. Henfrey finds that "the growing point of a root is not at its absolute extremity, which is covered by a cap-shaped or hood-like portion of epidermis of its own, continuous likewise behind with the cambial structure. This cap-like sheath of the point of the root may be compared with the head of an arrow, forming a firm body, which can be pushed forward by the growing force behind, to penetrate through the resisting soil. This cap is subject to destruction and decomposition by external agencies, and is less distinctly seen in roots growing in earth than in those of aquatic plants. In all cases, it is con-

stantly undergoing renewal by cell-development at the back-part; and when it remains undissolved, as in many water-plants, it becomes very large; when it undergoes decomposition in proportion as it is renewed behind, it presents an irregular ragged appearance, which probably gave rise to the idea of a spongy structure at the end of the rootlets.

In like manner Messrs. Garreau and Brauwers find that the ends of roots undergo a process of exfoliation, (throwing off scales) the rapidity of which depends upon the peculiar constitution of the species, and the temperature and moisture to which it is exposed. This exfoliation is connected with the formation of new tissue in the midst of a viscous matter, beneath skins or hoods of epidermis which are eventually thrown off."

New-Rochelle Blackberry.—Seed for Distribution.

We are glad to see, in our advertising columns of last number, a great reduction in the price of New-Rochelle blackberry plants this year. Only a few years since we paid 50 cents per plant, and would do the same now, rather than be without them; but good, strong rooted plants are now offered at $6 per 100. [It should be understood that "*New-Rochelle*" and "*Lawton*" are synonymous names of the same plant. The name Lawton was not, in our opinion, either justly or legitimately applied.] This variety of the blackberry has been so long and thoroughly tried and proved, and is so valuable, that we desire to see it everywhere introduced among our readers. By the way, we met Mr. Seymour Sept. 8th, and he informed us, that up to that date they had picked over 500 *bushels* of berries on the 3½ acres we referred to last month (page 276).

We advise Fall planting—at any time after the leaves wither. If set at this season, they get established in the ground, and in Spring send up larger canes for the next year's bearing. In very cold localities, say north of latitude 45°, and even south of that, in high bleak situations, it may be safer to wait until Spring, but not elsewhere, as a general thing. The plants are seldom injured by frost; those full grown are often broken down by snow, which should be guarded against.

Raising from Seed.—Blackberries like other fruits, *sport* when raised from seed, and there is no certainty of getting the same variety; yet the blackberry appears to sport very little. In all cases, where practicable, we advise to propagate by the roots; but in remote localities where it is not possible to get rooted plants without great risk, trouble, and expense, and in such cases only, we think it well worth while to plant some of the seed. The probability is that the true New-Rochelle, or a very similar variety may be obtained, though this can not certainly be depended upon. There will be a chance of getting a plant or two of even a better variety. To provide for our subscribers on the Pacific Coast, and in other remote Territories, we have secured a limited supply of the true New-Rochelle blackberry seed, which we shall offer in small parcels in our free Seed Distribution for next year—to be announced next month.

The Bedfordshire Prize Cucumber, the seed of which we distributed last Spring, appears to be much liked so far as we have heard from it. A subscriber in Columbia County, N. Y., Mr. P. F. Cady, sent us in a specimen raised from seed, received from the *Agriculturist* office, which measures nearly twenty inches in length and 11 inches in circumference; and this he says is the usual size of such as are left to mature.

Rhubarb.

This vegetable is fast gaining favor among farmers and gardeners, the growing demand for marketing rendering its cultivation quite profitable. The modern varieties, Linnæus, and Victoria, are very unlike the small, tough, and stringy stalks of old sorts. It is one of the earliest vegetables of Spring, and comes in just as the apples have nearly disappeared; it also continues in cooking condition all Summer, and furnishes a fine Winter dish when put up in air-tight cans or bottles. Just now is the best time to set out the roots, or crowns of rhubarb, so that they may push into growth at the first opening of Spring. Make the ground rich and mellow, and set out roots four feet apart. Add a mulch of coarse manure, late in the Fall, to partially protect them from hard freezing, and cause them to start earlier in the Spring. Those who think rhubarb is too acid for health, or requires too great a draft upon the sugar-bowl, can add say, one teaspoonful of saleratus or soda to sufficient pie-plant for two pies. The alkali of the soda neutralizes much of the acid of the plant, so that less sugar is needed. The flavor of the sauce or pie is also improved, for those who are not fond of tart sweetmeats.

Plant an Asparagus Bed—It Pays.

We actually know a man who had nearly bargained for a farm some ten years since, but the fact that he found no asparagus bed in the garden was the make-weight which induced him to give up the purchase, and buy another where this, to him indispensable, luxury was in vigorous growth. This may be a rare case, but if two farms were lying side by side, alike in all respects except that one had a large bed of vigorous asparagus growing, and the other none, the former would be chosen at once by any one accustomed to this vegetable. It is a real luxury in Spring to be able to cut a daily supply of asparagus, when most articles of food are of the dry kind. Let us try figures: A large family dish of fresh home-grown asparagus is certainly worth 12 cents at the very lowest estimate. This on every other day for two months, amounts to $3.60, which is equal to a good interest on $50. But a capital bed of asparagus, large enough for any family, will not cost $5, preparation, manure, and labor, included. Figures won't lie.

Some of the books and newspaper "directions" make the preparation of an asparagus bed a laborious, tedious, costly affair. This is nonsense, we well know by more than one trial. You can spend as much time and money as you like on such a bed, but the following is all that is ordinarily needed. Select a piece of fair soil—not too heavy—where it will not be necessary to disturb it by plowing. It may be of any shape, long, square, or round for that matter. The size may vary from one square rod to three or four—the larger the better if your neighbors have no home supply. An old bed 20 feet square supplies our large household, and some to spare.

Spade the ground this month (Oct.) 18 inches or more deep, digging in a coating of four to six inches of stable manure. No matter how many bones, old shoes, rags, etc., find their way into the bottom. Rake the surface and the bed is ready.

Get from a nurseryman, or seed dealer, some two-year-old roots; they cost 75 cents to $1 per hundred hereabouts. Plant these about one foot apart each way, covering the crown or head of each, say 4 inches below the surface. Smooth off the bed and it is ready to be drawn upon for half a century, more or less. If made in Autumn, it will yield very well a year from the Spring following, and grows better as it grows older.

If roots can be obtained, it will save a year or two in time, but, at remote points, any one may raise the roots from seed sown in Spring on a warm dry bed of soil, and transplant the roots in Autumn of the next year. We this year cut large stalks from seed sown three years ago, in a drill along the border of an old bed. They were not transplanted. Fair stalks were obtained last year.

In Autumn it is well to spread two to five inches of manure over the asparagus bed and spade it in very early in Spring. This protects the roots, hastens the growth, and enriches the plot.

The Vinegar Plant.

To the Editor of the American Agriculturist:

Mrs. M. J. S., in the *Agriculturist* for August, asks what the *Vinegar Plant* is. I answer, it is a peculiar state of a kind of Mold-Fungus. The Vinegar Plant is the same as the Ferment-Plant, that is, the plant of Yeast. As it grows in the molasses (or any other sugary or farinaceous matter) it somehow turns the latter into alcohol, that into aldehyde, and that into Vinegar. If we wish to make beer instead of Vinegar, we have only to make the fermentation take place slower, and in a cooler temperature, and to stop it at the first of these stages.

In turning the sugar into alcohol, carbonic acid gas is given off; that is, the sugar is decomposed into alcohol and carbonic acid; the latter makes the beer frothy and pungent.

When we add the yeast to dough, the Yeast-Plant grows, turns some of the starch into sugar, and decomposes that into alcohol and carbonic acid, and the minute bubbles of the carbonic acid gas, entangled in the dough, expand with the warmth, and still more with the heat of the oven in baking, and fill the bread with pores and cavities, *i.e.*, make the bread *light*.

It has lately been ascertained that the Vinegar Plant, or Yeast-Plant, is only a peculiar state of the common Bread-mold. The mold on old bread or other farinaceous matter is only the Yeast-plant going to seed. G.

The Verbena a Native.

To the Editor of the American Agriculturist.

From your article in the September *Agriculturist*, on the history of the Verbena, I infer that it is not generally known to be a native of the United States. I think there has been some dispute about who is entitled to the credit of having introduced, or imported the Verbena. It is growing wild in great abundance on the hills of this vicinity. Some of our botanists say there are three distinct varieties of the wild Verbena here. I am not certain that I have seen more than one, a specimen of which, I herewith enclose to you [Specimen received is a genuine Verbena.—Ed.]

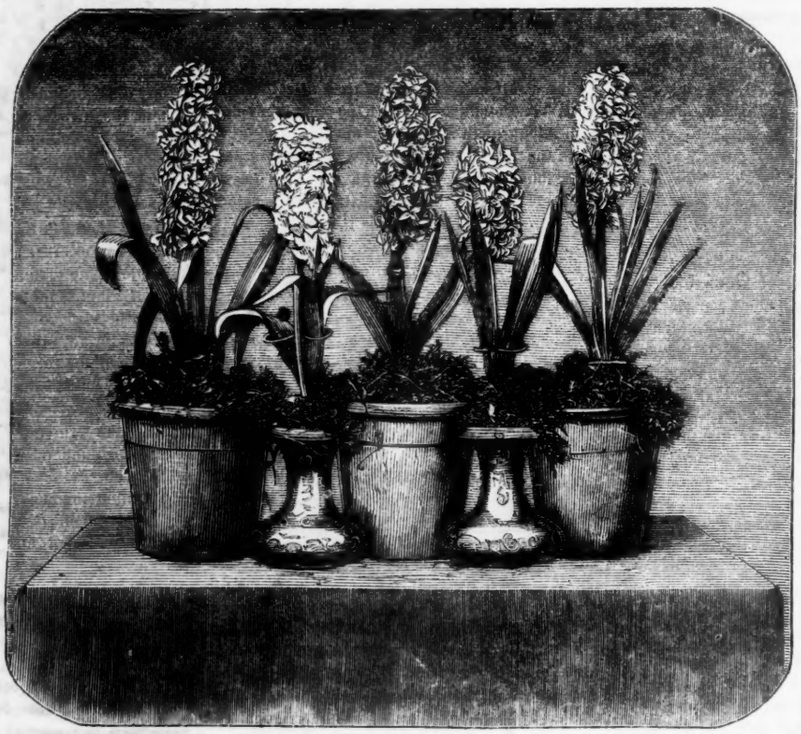
We have a great profusion of most beautiful flowers in this region, many of them choice varieties which at the East I have only seen cultivated in gardens. There are at least four varieties of Phlox growing wild here, as beautiful as I have ever seen.

There seems to be a great passion now-a-days, for foreign, or imported articles, sometimes, no doubt, to the neglect of equally choice varieties of natives. I hope that the Verbena will not depreciate materially in value when it becomes known that it is a native American.

St. Louis Co., Mo. L. D. Means.

Preserving Flowers for Winter.

We number not a few botanists among our readers, and a still larger number of persons who love flowers for their own sake, and who would like to preserve them with more or less freshness throughout the year. This can be done with a little care. All that is required is, to dry and press them, and then to fasten them with glue or gum to the pages of a blank book—attach also the names of the flowers. In selecting specimens for preservation, take those of average size, with no parts wanting, and none in excess. Get those with leaves attached to the flowers, and with stems not very thick, else they will not press well, nor lie smoothly within the leaves of the book. Get also a specimen of the seed vessels, if you have a seed-bearing plant.



The plant-gatherer should, if possible, go out into the woods and fields, equipped with a botanical box. This is nothing more than a flat tin box, six or eight inches wide, and a foot or fifteen inches long, and shaped like a candle box, only thinner, and having a lid which shuts tight. This will keep the specimens fresh for a day or two, if occasionally sprinkled. He should also have at home a portfolio a little larger than the box, for receiving the plants at the close of each excursion, and for drying them. The paper may be any common unsized sort, such as the poorest printing paper, or grocer's white tea-paper. The newly gathered specimens should be laid separately between the sheets of paper, and then a moderate weight be laid upon the closed portfolio. If the specimens are quite succulent and moist, they should be placed between *several* sheets of coarse brown paper, to absorb the moisture; and it may be necessary to change these absorbers daily for a week, before the specimens are perfectly dry.

The blank book for receiving the dried plants is generally called a Herbarium. It should be made for this specific use. The best size is about sixteen inches by eleven. Some prefer eighteen by eleven. The great botanist Linnæus, used common foolscap paper, eleven by seven; but he found this too small. The best kind of paper for an herbarium is a neat, rather firm, and sized paper, kept for such purposes at most bookstores. The several species of plants should be placed in sheets by themselves, with only one specimen to a sheet. The generic and specific name of the plant should be written at the lower right hand corner of the sheet, together with any other items of interest connected with the history of the plant; such, for instance, as the place and time when gathered, or the friend from whom it was received, etc. Then, as these sheets accumulate, they should be gathered into covers, (called by botanists "genus-covers,") made of a thin sort of paste-board, or the coarsest drawing-paper, and the name of the genus written on the outside. When several of these are collected, they may be put into a thick portfolio, having the name of the *Order* on the outside. The portfolios may be kept on the shelves of the library. Specimens should be dried as quickly as possible, to prevent their becoming black and moldy. As many kinds of plants, and conifers especially, are apt to fall in pieces when dried, this may be prevented by plunging the newly gathered specimen for a minute into boiling water. We know of few recreations for a stormy day in Fall or Winter, more pleasant than examining a good Herbarium.

Bulbous Flowers—Hyacinths and Tulips.

October is the best month for making beds of hyacinths and tulips. Other bulbous-rooted plants are not indeed to be disparaged. For how could one get along without

> "The Snow-Drop, which in habit white and plain,
> Comes on, the herald of fair Flora's train:"

or the crocus, said in some regions to be

> "the first gilt thing
> That wears the trembling breath of Spring."

or the Narcissus, Gladiolus, Tiger-flower, the Lilies and many others. No; we would not breathe a word against them; but just now, our thoughts run in the line of hyacinths and tulips.

Does any one forget how much interest was formerly felt in these flowers, especially the tulip? In the seventeenth century, the latter became an important article of commerce, and the price of favorite bulbs was almost incredible. In Holland and Belgium, several thousand francs were often given for a single root; and in 1637, the whole amount sold amounted to several millions of francs. A piece of property is still exhibited in the town of Lille, which, though valued at $6,000 was once exchanged for a single fancy tulip! The following story is told on good authority: "During the tulip-mania in Holland, a merchant gave a herring to a poor sailor who had brought some goods into his store. The sailor seeing some roots lying on the counter, and supposing them to be onions, took some of them unperceived and ate them with his herring. It turned out that they were very rare and valuable tulips, and the sailor's breakfast cost the merchant a greater sum than if he had entertained the Prince of Orange!" But things were thus getting to so bad a pass, that the government had to interfere and prevent this spirit of speculation: laws were passed forbidding more than 200 francs to be paid for a tulip. That sum has continued to be given for some fancy sorts in Holland, to this day, but as a general rule, the price has been very much reduced. In England, we understand that even now a large and first-class collection is valued as high as five thousand dollars, sometimes more.

But there is no sense in the indulgence of these extravagant fancies. The poor as well as the rich may have a splendid assortment at very little expense. And how gay a scene does a fine bed of tulips present! The form of the flower, its gorgeousness of color, and the variety of its markings and tints furnish one of the finest floral displays of the whole year.

Less splendid, perhaps, but not less pleasing to the eye of taste is the hyacinth. It has almost every color and every shade, from fiery red to pale rose; from pale blue to blackish purple; from the faintest straw-color to a reddish salmon hue. Then, there are whites, with red, blue, and purple eyes; some, again, are striped, some shaded, and some tipped with green. The fragrance of the hyacinth is not its least attraction; and then it is perfectly hardy and very easy of cultivation. Plainly, too, there are varieties enough for every taste; the Dutch catalogues number upwards of two thousand sorts.

The treatment for the tulip and hyacinth is similar, and is as follows: Choose an open, moderately dry situation, take away the top soil, if very stiff and poor, and bring in better; or if good, let it remain and be further improved. The best sort of earth for these bulbs is a mixture of rotted turf and sand, and old cow-dung. If a little leaf-mold is added, it will be all the better. Mix these several ingredients thoroughly, and then rake and level smooth. In buying bulbs, select those only that are bright and sound. Let no seedsman palm off spotted, or soft and half-rotted roots upon you. Refuse roots are often thrown upon the market, and the uninitiated are imposed upon. Good bulbs having been obtained, set them four inches deep, and eight inches apart. It is well to put an inch of sand around each bulb. The different colors should be arranged with some care, for the sake of pleasing contrasts. If one wishes the best possible effect from his bed, he should make a plan of it on paper beforehand, laying down on it every root with its name and color, arranging them according to known laws of combination. He will then know just how his bed will look. After the bulbs are set, nothing more will be required for the present, except to cover them late in the Fall with leaves or a few inches of old manure. This, of course, should be removed as soon as the frost is out in Spring.

The tulip has generally a stem strong enough

to support its flower erect, but the double hyacinths often need small stakes. If these are neatly made and painted green, they look well, and prevent the stalks from being broken down by the wind, or falling by their own weight. Some amateur florists and nurserymen stretch an awning over their finest beds during mid-day, and thereby prolong the period of flowering, a week or more. As soon as the foliage turns yellow, the roots may be taken up and laid in some by-place, and covered with a little earth. They will be ripe in a fortnight, and may then be sorted and put away in dry papers till Autumn. Or they may remain in the ground two or three years without transplanting.

In the choice of varieties, tastes differ. Among tulips, some persons prefer the Parrots (variegated colors), others the double sorts; but the more critical declare in favor of the single varieties. These, when of the right form and markings, it must be confessed rightly bear the palm. It is desirable to have some of the early and of the late bloomers, so as to extend the flowering season to about a month. The Duc Van Tholls are among the best of the early bloomers. Learned florists classify the late bloomers into Prime Baguets, Rigaut's Baguets, Incomparable Verpoorts, Byblœmens or Flamands, Bizarres, Paroquets and so on; but these hard names add nothing to the beauty of the flowers. Among hyacinths, the double varieties are generally preferred, but many of the single sorts are equally as good, for they have a greater number of bells and are often superior in color. If one can visit a garden having a fine collection in bloom, it will afford the best opportunity of making a choice of the best varieties; but in lieu of this, he may send to a reliable seedsman or florist, for as large an assortment as is wanted, and he will be quite likely to be satisfied with his investment.

Again, we repeat it, now, this present month of October, is the best month for making beds of tulips and hyacinths. Whoever follows our advice will never rue it.

Hyacinths are frequently put into pots of earth and kept in the green-house, or cellar, or in any cool room. During the Winter they are carried to a warmer place, as in a parlor or sitting-room, to bloom. They can be brought forward to bloom at almost any time during Winter, according to the degree of warmth they are subjected to. They may also be placed in hyacinth glasses for flowering. This process we described on page 371 of last volume. Our illustration at the head of this article shows some choice varieties in pots and glasses.

For the American Agriculturist.

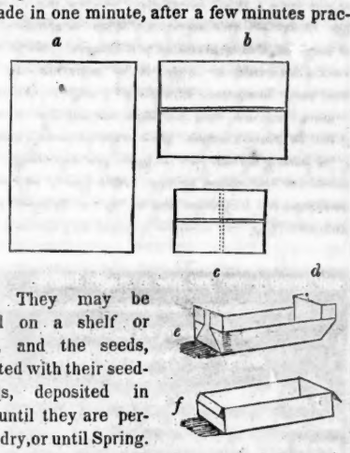
Seed Papers.

SIMPLE, SAFE, AND CONVENIENT.

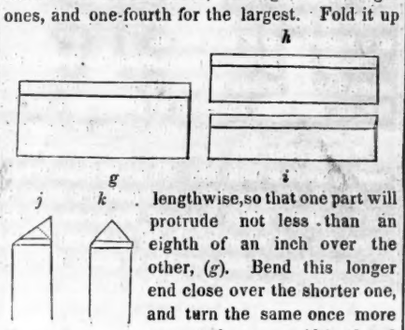
At this season of the year, the following directions for making the simplest and most secure seed papers, for collecting and preserving flower seeds, may be welcome to many, at least to amateurs:

No. 1.—*Collecting Boxes.*—Take a piece of letter, or cap paper, (*a*,) about half longer than wide, (say four inches by six inches, or 6x9,) and fold up first both *short* ends so that they meet in the middle, (*b*); now, without unfolding this, fold again so that the ends may meet in the middle, (*c*). Now, keeping this flat on the table, unfold it so far that the four sides form four vertical walls, two, of course, will be found to be higher, (*d*). Bend the ends of the lower sides around the higher ones, (*e*,) and finally turn over the protruding higher ends, so that all sides are equally high, (*f*.)

This gives a neat little box, two of which can be made in one minute, after a few minutes practice. They may be placed on a shelf or board, and the seeds, collected with their seed-vessels, deposited in them until they are perfectly dry, or until Spring. On the over-lapping ends, the name of the seeds is marked. Two boxes may be placed, one upon the other, especially to retain in the lower one seed-vessels which spring open and scatter their seeds, as Pansies, Balsams and others.



No. 2.—*Preserving Capsules*—For keeping the seeds in, after they are cleansed from their shells. Take a piece of writing-paper, of about the same proportions as that used for the box No. 1; one-sixteenth of a common sheet of letter-paper will answer for small seeds, one-eighth for larger ones, and one-fourth for the largest. Fold it up lengthwise, so that one part will protrude not less than an eighth of an inch over the other, (*g*). Bend this longer end close over the shorter one, and turn the same once more over at the same width, (*h* and *i*). Then, at one short end, bend back one corner—that with the fold (*j*)—and at right angles, and over it the other corner, whose point is tucked under the fold, (*k*).



The seed is put in at the other end, and this afterwards closed like the first. When the thumb-nail is smartly applied while folding the paper, (or the paper-knife by more delicate fingers), and the folds and corners are carefully turned, no seed, however fine and small, can possibly escape or be shaken from these papers. They are quickly opened by thrusting the finger tip under the fold at one end, (never at both); a slight pressure with the thumb and forefinger on both edges of the capsule opens it fully, for the reception or pouring out of seeds, and then it is as easily closed again; from 4 to 6 may be made in one minute. It will be found most convenient to hold the paper, while folding, in the same positions before you as shown in the engraving. They are preferable to the pasted capsules, which often leak out at the lower corners, and are both inconvenient and unsafe in their opening and closing part, besides all the trouble required in making. The folded papers are in use in Europe almost exclusively, and some seedsmen have adopted them here, but they have generally one fault in their making: that of leaving *too narrow* a turning-fold (at fig. *b*), whereby, especially when filled with larger seeds, the whole fold opens and lets the seeds out.

MIMOSUS.

Saving Flower Seeds.

Don't forget to save flower seeds, as they successively ripen. Many careful and industrious gardeners are annoyed every Spring by thoughtless neighbors coming to beg seeds. "I had plenty of flowers last season," they each say, "but neglected to save any seed; it was too great a bore to do it; please give me a few of several of the prettiest kinds of flowers, as you have a plenty." And so it happens every Spring. Now, the only way to treat such people is to say, "*No*: save your own seeds; or if too careless or indolent for that, then buy them!"

There are cases, indeed, in which one person may ask for a few seeds of his neighbor; but no one should live by begging. Every person who pretends to have flowers, should make it a regular part of his Summer's business to save seeds for the next year's use.

Some persons keep all their old letter envelopes for gathering seed; others make little paper bags for the purpose. Or, if one does not choose either of these methods, it is well to have an old newspaper always at hand when walking in the garden, to collect any seeds that may be ripe. Mark the name on the margin of the paper, and lay the seeds away to become thoroughly dry. On rainy days, these may be cleaned of chaff, done up in small packets, and laid away for the season. As some of the finest of the late flowers are now ripening their seeds, our advice may be followed to good advantage.

Keeping Verbenas and Geraniums in Winter.

Choice Verbenas and Geraniums are often lost during the Winter for want of proper care. The old roots are taken up in Autumn, potted, and set away in the cellar, only to come out in the Spring thoroughly dried up, or, if the cellar is moist they have become moldy and decayed. It has been recommended to take them from the ground, and hang them in the cellar during the Winter. They will sometimes, but rarely, recover when set out the following Spring.

They are best kept in a green-house or pit; but if one has no such conveniences, he may pot the layers, or recent cuttings, just before frost, and either keep them on the parlor shelf, or in the window, where they will grow and bloom toward Spring, or he may set the pots in a warm, dry cellar, after the plants have become well rooted, and let them go through the Winter in a dormant state. The earth will need examining, and watering occasionally, or the roots will become so dry that it is difficult to resuscitate them in the Spring. Of course the foliage drops off, and perhaps only the root survives; but that is sufficient for the purpose intended.

Fruit Preserved in Glass Bottles—An Improvement.

On page 214, (July *Agriculturist*) we described minutely the process of putting up fruits in glass bottles. On the plan recommended we put up a good supply of strawberries, cherries, raspberries, blackberries, etc., but in several cases the process proved a failure. Some of the strawberries not scalded through before bottling or sealing, fermented and drove out the corks. In another case where the fruit was thoroughly scalded, not cooked to destroy the flavor, fermentation was traced to an air-hole in the wax, and in two other cases the corks were driven in by

the outward pressure several days after putting up. This happened because they were set in a chamber closet near the kitchen chimney, and the heat from this during the hot weather softened the wax so much that the wide thin corks gave way to the pressure created by the vacuum within, left by the condensation of the steam when the fruit cooled.

These failures were annoying, and at first, promised to partly counterbalance the advantages of glass bottles over the air-tight, screw-top, tin cans. But more careful and thorough heating of the fruits put up, and their storage in a cooler room, and a thicker double coat of wax promised to remedy further difficulty. Several of our neighbors following our first method, but storing the cans in cool cellars, found no difficulty.

But we soon hit upon an improvement which we like much, and we think it will render the use of glass vessels perfectly practicable and desirable. Further, we can now dispense with even the bottles having a shoulder upon the inside of the neck, though this form is desirable, where they can be readily obtained, and at reasonable prices. Having on hand several wide-necked bottles of various forms and sizes, we have recently used them for tomatoes and different kinds of fruits. The improvement is this. We procure at the tinners, small tin dishes commonly called "patty-pans." These are simply circular pieces of tin pressed into the form of a pan or plate. Those we use are a little more than ½ inch deep; the flat bottom, is 2¾ inches across, and flaring out to 3¾ inches wide at the top. They are therefore about the diameter of ordinary wide bottles. We buy them at $1 50 per gross, or about one cent each.

The glass bottles of any desired form and size, wide-necked of course, to admit the fruit readily, are filled with fruit in the usual manner and corked. A coating of cement is added and they are then inverted into these pans and melted cement poured in around the neck until the "patty-pans" are one-half or two-thirds full. The annexed figure shows one of the bottles filled and set away either end up, though we think it better to let them stand in the pans bottom up. The tin, of course, prevents the cork from being driven inwards, while the thick layer of cement all around the neck perfectly prevents any access of air. The cement is cheap and easily made. A pound of resin ("rosum") costing a few cents, is simply melted with a full ounce of tallow or lard. As this cement keeps any length of time, it is better to make up half a dozen pounds at once in a tin basin, or iron vessel which can be set on the stove and melted whenever needed. It can be dipped into the patty-pans with a spoon.

This process of putting up fruits in common glass bottles, (we have full quarts costing but 6 cents each,) and adding the tin cup, is the best and cheapest we have yet found, and is as simple and easy to be performed as any other. We may add further, that having some wide-mouth bottles, and no corks at hand to fit them, we filled them to the top, and simply tied a piece of thick cotton drilling over the neck, coated the cloth with cement, inverted the bottle in the pans, and then filled them nearly up with cement; care was taken to have every part of the cloth coated with cement. These keep as well as those with corks.

Now is the time to lay in a good stock of apples, late plums, pears, quinces, etc., and of tomatoes *quantum sufficit*. Cook the latter well, preparing them precisely as if for the table, pour them hot into the bottles, previously warmed to prevent cracking, and cover as above described. The cost is very trifling, and you then have in store, always ready for use, an article that will come out just as nice and fresh as when first prepared. We have put up many bushels of tomatoes in this way, during the last few years, and have never yet lost a single bottle.

For the American Agriculturist.

How to Preserve Cider.

Prof. Horsford has announced a method to arrest the fermentation of cider, thus keeping it sweet for an indefinite period. The process is simply by adding Sulphite of Lime. This article is now extensively advertised by druggists for this purpose, and represented as "perfectly harmless," as you see by the advertisement inclosed. A medical friend of acknowledged chemical acquirements and acumen, *assures* me that this application forms an Acetate of Lime, diuretic in effect, unnaturally and unfavorably exciting, and stimulating the action of the kidneys, and that while its effects would not be noticed by all, perhaps directly traced only by a few, it would be decidedly injurious to those persons predisposed to a disturbance of this organ.

There is a growing disposition to bring the much abused article of cider to a standard of perfection, that shall establish its claims as a wholesome beverage. I have seen a notice of a patented invention for this purpose. Liquids spoil or sour by contact with air. To avoid this a "Rubber Bag" of appropriate construction is fitted to the bung-hole, which prevents the access of external air, and when the liquid is drawn off, the bag turns inward and expands to cover the surface of the remaining liquid, and prevent contact with the outward air.

And later still, I see it recommended to use a tube or syphon, the long and lower end terminating in a vessel of water, the short and upper end tightly fitted to, and just entering the vent, which permits the passage of the gas which should and must escape out into the pan of water, and at the same time excludes the ingress of external air, thus preserving the liquid *sweet* until consumed. This I think a most sensible suggestion and *easy* of application. A. M. Ward.

Hartford Co., Conn.

Preserving Lima Beans for Winter Use.

We know of no way of keeping peas, beans, corn, etc., for Winter use, superior to that of cooking them thoroughly, with a sufficient quantity of salt, and sealing them while hot, in air-tight cans or bottles, as described in the July *Agriculturist*, page 214. When properly prepared and preserved in this manner, they lose but little of their original excellence, and constitute a notable addition to the table supplies for Winter. They require much care in putting up, however, or they will spoil in the cans. Where they are not kept thus, some vegetables may yet be made very serviceable by drying. Lima beans, particularly, are good when dried. Many of them mature late and would otherwise be lost—they are too valuable a vegetable to be wasted. The common practice is to shell them while green and spread them on plates or tins, and dry them in the sun. A correspondent, A. M. Ward, Hartford Co., Ct., sends the following directions by which he says the beans preserve a high degree of excellence. "Gather them from time to time, just as the pods begin to turn yellow. Leave them unshelled, and spread upon the garret floor to dry. Continue to do this until hard frosts entirely check the growth—they will continue to mature under light frosts. When the frosts become severe, gather all, including the half ripened ones, and spread them with the others. Then in December shell all out and put up in bags. The most immature should be put up by themselves and used first."

We must not forget to add, that the best and earliest ripening pods should be selected, and saved for seed another year. Those designed for this purpose should be allowed to ripen well, and be kept in a dry place. With this care, and planting upon elevated ridges the first of May, we this year secured Lima beans for cooking much earlier than many of our neighbors.

How to use the Apple-Pie Melon.

We have accounts from correspondents relating their experience in raising this melon, and inquiring what to do with it now it is grown, as they are found not fit to eat uncooked. The name melon has probably misled some as to its proper use. The following directions from one who has used it, are timely. We intend trying them, and shall then be able to speak definitely of the merits of the "melon."

"When ripe, which can be known by the melon turning yellow, or the seed black, remove the seed, pare and slice the flesh in small pieces, and then stew it in water just enough to have it like stewed apples; when done add sugar, spices, *and a little acid*. Tartaric acid, or lemon juice, or good vinegar may be used; the latter, however, does not make as good a pie. A tablespoonful of lemon juice to four pounds of melon, I think the best proportion. The quantity of sugar must be in proportion to the acid. Without the acid the pie is tasteless. Don't put the sauce in a copper vessel. California."

Recipes.

To Pickle Walnuts and Butternuts.

Take the nuts when a needle will easily pierce them—put them in brine that will bear an egg, let them remain 14 days; put them in fresh brine 14 days more, keep close covered from air, drain them well; put into the strongest cider vinegar for a month, shifting once. Then add to one-half the liquor as much vinegar as will cover them. Set it over the fire, and when it is just ready to boil, add for every hundred nuts, whole pepper and cloves 1 oz. each, mace and nutmegs ½ oz. each, ginger root ½ to 2 oz., bruise the ginger, nutmegs and pepper. After boiling, keep it close covered till cold, then pour it over the nuts, and cover with bladder or leather.

Tomato Wine.

Contributed to the *Agriculturist*, by Jas. H. Stout, Ohio Co., Va.: To a bushel of sound, ripe tomatoes cut, add four gallons of water. Let the mixture stand in an open tub, three days, stirring two or three times each day, then strain through a sieve. To each gallon of the clear liquid, add three pounds of brown sugar, stir until the sugar is thoroughly dissolved, after which it is not to be disturbed for three days, except to take off the scum as it rises. Then strain the liquor through muslin, or flannel bags, and put it in a cask, filled to the top of the bung hole. There must be a surplus of the liquor to replace what fermentation throws off, as the cask is to be kept full. As

soon as fermentation becomes feeble (which is usually at the end of a week from the time the cask is filled) dissolve half an oz. best Isinglass in a portion of the liquor, put it in the cask, and bung tightly. Half an oz. Isinglass is sufficient for ten gallons. Place the cask in the cellar, with the spigot in, so that the wine can be drawn off for bottling, without disturbing the sediment. The proper time for bottling, is the following May. The wine is good when a year old, but continues to improve for several years. Two and-a-half bushels of tomatoes will make ten gallons of wine.

Hints About the Teeth.

BY ANNA HOPE.

The teeth should be kept scrupulously clean. There is nothing more disgusting than filthy teeth. The brush should be used daily—twice a day is better—and after every meal, better still. A bit of floss silk, or of soft linen should be passed between the teeth after brushing, to remove every impurity that may remain. Tooth powder is not often necessary, and great care should be exercised in its selection. That which contains an acid, whitens the teeth readily, but it injures the enamel. Pulverized pumice stone should never be used except by a judicious Dentist. It will ruin the teeth. Fine charcoal is well for those who have no teeth filled, but when teeth are filled it will be found in time to darken them about the filling. Strong acids, like lemon juice, are very injurious to the teeth. Do not make nut-crackers or ice picks of the teeth. Very hot food injures them. Both sides of the mouth should be used in mastication. It is better for the teeth to work than to remain idle. It is important to secure the services of a *good* dentist, especially when teeth are to be filled, for a tooth once lost, is lost forever. A few dollars, more or less, in a dentist's bill is of very little consequence compared with the loss of a tooth. I would rather live on bread and water from the first day of January to the last day of December, than to have my children lose their teeth. I know a young lady who has deliberately chosen to let her teeth decay without making an effort to save them, because she is unwilling to submit to the pain. In a few years she will be a toothless young woman, with here and there an ugly stump, and a harvest of suffering she would be very willing to escape. She thinks she shall be very well satisfied with such teeth as a dentist can furnish her, but how much better would be those God gave her, if she would only use the means he has placed within her power to preserve them. It is not particularly pleasant to any one to place herself under a dentist's care, and I do not wonder that children shrink from the suffering, but we can not escape suffering in this life and we should as early as possible teach our children to bear it bravely. I remember nothing concerning my father more distinctly than the resolute firmness with which he inspired me, when it was necessary to have tight teeth extracted to make room for others. I shall never lose the influence of those moments, and I have often felt, as my children have had teeth drawn or filled, that they were made mentally and morally stronger for it, and yet I have known one of them suffer so much that he has been confined to the bed several days in consequence of it. If your friend has lost the teeth nature gave her, and has for them substituted the work of the dentist, it is neither good taste nor good manners to speak to her about it. If she wishes your opinion of them, she can ask you, but none but a very intimate acquaintance should presume to allude to them, and she, only to express satisfaction, unless some desirable improvement may be suggested, which it is in the person's power to have accomplished. You should not even appear to notice them. It is a mark of ill-breeding to do so, and ill-breeding is poor christianity. Good teeth are a great ornament, and if any one is so unfortunate as to loose them, she has reason to be grateful that their place can be supplied, but true delicacy would lead her not to wish to talk about them to every one and on all occasions. I do not think there is necessarily any false pride in this chosen silence, or any disposition to impose upon others.

A Point of Etiquette Decided.

Miss Lottie L. Forbes, Trumbull Co., O., proposed the following question for answer in the *Agriculturist*: When a young gentleman meets a lady acquaintance, which should recognize, or speak to the other first? And as a similar inquiry has been frequently asked, we have been at some pains to consult good authorities. "Aunt Sue," whose experience is valuable, and whose opinions on such matters may safely be endorsed, writes as follows:

MR. EDITOR.

Tell Lottie L. Forbes, not on any account to forego her privilege of being the *first* to acknowledge a gentleman acquaintance in the street. The gentleman waits for the lady's recognition. I'll tell you why, Lottie. Suppose you are introduced to one of the *un*-fair sex, whose acquaintance you desire not at all; next day he meets you in the street and bows; you wouldn't have the heart not to return the salutation—leastways I shouldn't. "Ah!" says Mr. Un-fair, "I'll call on the young lady this evening"—and he calls, and you are obliged to entertain him. On the other hand suppose (if possible to suppose an unsupposable impossibility) that the gentleman does not like *you*; he meets you in the street, you bow to him, he is bound in courtesy to return the salutation, but there it may end, he need not call upon you and cultivate the acquaintance. So you see, Lottie dear, it is very desirable that it should be generally understood, that the *ladies* give the first recognition, either by bowing or speaking.

Yours truly, AUNT SUE.

Fashions—Magazines.

Some friend, we know not whom, sends us a marked copy of the *Olean* (N. Y.) *Advertiser*, which we find has a "Ladies' Department," edited with considerable ability by Mrs. R. L. Hasset. We congratulate Mr. Henry, the publishing editor, on having an appropriate person to take care of the "better half" of his journal. Not every journalist can afford such a luxury. But this by the way. In the paper before us we find an article which we feel disposed to print here, not so much for the mention of our own journal, as for the suggestions it contains. It is proper to say that we knew nothing of this article until we saw the paper in which it appears, and we do not yet know the writer. We copy

"THE FASHIONS—A DIALOGUE."

Mrs. Lane.—What Magazine would you advise me to take this year, Mrs. Emory? You know I took Godey's and Peterson's, last year, but money is so hard to obtain that I can take but one this year; and as I have been unable to decide between the many good ones, I have not subscribed for any yet.

Mrs. Emory.—If you ask my advice, I shall probably advise you to subscribe for the one which I am taking, as I am strongly inclined to give that the preference.

Mrs. L.—I have the utmost confidence in your judgment on such subjects, and I presume the one you are taking will be just the one for me.

Mrs. E.—I think you would be pleased with it, and as you spoke of the difficulty of obtaining money, you may be glad to learn that you can obtain it for the low price of one dollar per annum.

Mrs. L.—What! a good Ladies' Magazine for one dollar? Why, I have had to pay from two to three dollars for the magazines which I have taken. Does it contain the fashion plates, Mrs. Emory?

Mrs. E.—Yes, Mrs. Lane, it contains the fashions and the very best of fashion plates; just such fashions as I wish to see introduced among our country ladies.

Mrs. L.—Indeed! Then I hope some improvements have been made of late. I have wished, for a long time, that they would bring about some fashions that would be less expensive. Emily is doting on a new silk dress, and insists on having it made with a double skirt, as that is "all the go" now. If we get one for Emily, Maria must have one; and if Emily and Maria have silks, then Sarah and Louisa must have something nearly as good; and if one has a double skirt, all must have the same; so you see we are "in" for eight costly dresses, or what amounts to about the same thing, as it takes nearly two to make one.

Mrs. E.—I can sympathize with you, Mrs. Lane, so far as the difficulty of obtaining money is concerned; but the necessity of purchasing costly dresses I know nothing about, by experience; as I always manage to keep my wants of that nature entirely within our means. And I think, Mrs. Lane, if you can induce your girls to copy the fashion plates contained in *my* Magazine, you will not be under the necessity of incurring such expenses.

Mrs. L.—Then it is the paper for me, I am sure. What is the name of it?

Mrs. E.—It is the *American Agriculturist*, published by Orange Judd, 189 Water-street, New-York—and the fashion plates consist of very neat engravings of natural flowers, plants, shrubs, trees, birds, etc., etc.

Mrs. L.—O, I understand you now; but I fear if they *should* learn to copy *such* fashion plates, that their love of dress would not be diminished.

Mrs. E.—I think it would, Mrs. Lane. Just get them thoroughly engaged in beautifying your home with flowers and shrubs—interest them in the cultivation of a great variety of plants not *merely* ornamental, and I think it will not be long before they will begin to find that they have *not time* to expend so much labor on their wearing apparel; and from the new use which they find for their *time*, I have no doubt they will soon see the folly of expending so much *money* merely for the gratification of their vanity. Indeed, they will, in a great measure, forget self, in their admiration of nature; and gradually they will learn to set a higher value on the cultivation of the mind and heart, than on mere personal decorations.

Mrs. L.—Could I hope for such a result, I would spare no pains to bring it about; for the expenses of dress are becoming an intolerable burden to us. My husband dreams of nothing else; and the first words he uttered this morning were, "Those dresses! how can we get them? and yet the girls will never be contented without."

Mrs. E.—Yes, this excessive love of dress makes mere puppet shows of its victims, and destroys nearly all desire for the improvement of the higher faculties of the mind. If you will send your girls to me, Mrs. Lane, I will give them some flower seeds, and give them some instruction in regard to their cultivation. In addition to the annuals which I cultivated last year, I have just received five neat little packages of choice flower seeds with the *Agriculturist*, making, in all I have, twenty-five or thirty varieties. These I will divide with the girls, and when they are in full bloom, if you do not find the conversation to be more about the flowers than the new dresses, then I am neither a prophet or a propheteess.

Mrs. L.—Yes, I will send them to you, and if you can do anything to assist us in checking this growing love of dress, we shall be your grateful debtors through life. I know we ought to have influence and *command* enough over them to make them willing to exercise a little self denial; but we very unwisely allowed them almost unlimited indulgence in such matters, while times were prosperous, and we didn't feel it. It seems strange, now, that we didn't consider that such times might not always last, or that if they did, we were doing injury, instead of good, to our family, by such excessive indulgence; but you know, though "experience is a dear school, fools will learn in no other."

Mrs. E.—It is true, we ought at all times to have command over our children; but if we have allowed them to acquire an undue fondness for finery; it may be better to lure them by degrees into another path, equally pleasant, than to begin by long lectures on the vanity and folly of dress.

Quaint old Fuller says: "Let him who expects one class of society to prosper in the highest degree, while the other is in distress, try whether one side of his face can smile while the other is pinched."

THE FIRST EFFORT

The Editor with his Young Readers.

Did ever any body see a more thoroughly self satisfied countenance than that of the boy in the above picture. He certainly thinks he has *done it*. True, the picture he has made on the slate, is not handsome to our eyes; it looks very little like a human figure, but this boy, who is just beginning to draw, thinks it a great performance, and is as happy in this idea as Benjamin West could be over one of his great paintings. This is probably his first attempt to be original. He has before copied figures from the book now thrown aside on the floor, and this picture is *all his own*. There is a real pleasure in such a feeling. You have no doubt experienced it; perhaps in just such an exercise, or it may be in writing a composition, or solving a hard question in arithmetic, or you may have made a windmill, or a box, or something requiring pains and skill. However poorly the work may have been done, it gave great pleasure because it was your own work. We should be encouraged by the happiness thus afforded, to try and succeed by our own efforts. We will give this boy a word of caution, to which you may listen. "Very well done my boy, for a first effort, but don't be too proud of it; don't be satisfied yet, for after all it is nothing to what you will be able to accomplish by repeated trials."

This is a poor boy, as you can see by his coarse clothing, his rough woolen cap and his clumsy shoes. He appears to be in a cabin, with not even a chair to sit upon, and yet he is happy. Ah! happiness is like the sunshine, which beams as brightly into the poorest hut as through the plate glass window of a palace.

When tempted to repine because you may not have some privileges which others possess, think of this boy happy with only a slate and pencil, and learn the lesson, that the sources of enjoyment are in ourselves, and not in surrounding objects, as most persons are apt to think.

"OLD PATCH."

Here is a little narrative which we have seen in print two or three times, but it deserves stereotyping: A poor boy came to school with a large patch on his knee. One of his school fellows, who was a little haughty, and withal a great "tease," began to nick-name him "Patch," and finally "Old Patch." The other boys who had perhaps suffered in the same way from the teaser, said to "Patch," "Why don't you 'lick him?' Yes, give it to him! I wouldn't be called names so by him; I'd give it to him!" ——"Pooh!" answered the boy with the patch, "you don't suppose I'm ashamed of my patch, do you? For my part, I am very thankful for a good mother who, though poor, toils to keep me out of rags. A neat patch looks much better than a slovenly ragged hole in my pants. Yes I honor this patch for my mother's sake."——There was a true and noble philosophy in this, and his companions felt it. "There's no getting the better of Patch" said the boys; "not a bit of *false* shame about him." And now the boys honored him for it.

WALKING ON THE TIGHT ROPE.

A great deal has been said lately about the performances of Mr. Blondin, who as you have probably all heard, has several times walked over a rope stretched across the Niagara river, a short distance below the falls. It is said he does it almost or quite as well as an ape could. Many people applaud him for it, and he has received considerable money for his exhibitions. We should not have taken any notice of the matter, but in many places boys are imitating his example by trying to walk on the tops of fences, ropes, and other dangerous places. Not one of these boys can ever hope to equal a cat in such performances. But is it not *brave* to perform such feats? No. It is rashness, foolish, because useless and wicked, because trifling with life. Leave such tricks for those who have no higher aim than to be mere agile animals.

THE UNKIND WORD.

Many children, usually good tempered, sometimes thoughtlessly speak in a cross unkind manner. We want them to read this little story we found in the S. S. Advocate. Little Nellie was such a girl, and although she loved her sister Katy, dearly, she sometimes grieved her very much by answering her crossly. One day Nellie had just found a fine large apple, and Katy who was several years younger, wanted it. She asked as sweetly as she knew how, "Please give it to me Nellie" But Nellie quickly refused her in a very unkind manner, and Katy turned away grieved and crying. She was not only disappointed, but the harshness of her sister made her very sad. That night, poor little Katy was attacked with croup. She suffered severely, and the next day, in spite of all the physician could do, her eyes were closed in death, and her sweet voice forever hushed. Then Nellie bitterly remembered her unkind words. "Oh!" cried she, "if Dear Katy could only come back for one minute that I might ask her forgiveness." She hung upon her neck, and kissed her again and again, but all in vain—and though she may live many years, the recollection of her unkindness will always give her pain. If you must refuse a favor, do it in gentle and kind words which leave no sting behind.

ABOUT THAT PICTURE—AND POCKETS.

We have been much interested in reading the letters which a number of our young friends have written, as we requested, about the picture, ("Stand behind me,") in the September *Agriculturist*. They generally agree in pronouncing that boy a good specimen of young America. The following letter expresses partly what we thought, when studying the engraving, and is so well written, that we have selected it to fill all the space we can spare:

MR. EDITOR:

Although I am but a *small* girl, I must say from what I can see in the picture, that I am strongly inclined to like that boy, I think I would be pleased to make his acquaintance, and would not give him the "mitten" should he ask me to go home from spelling school, or singing school, or any where else. I don't think it fair to make fun of him; he seems to be kind hearted, he speaks respectfully to the old lady. I don't care if they do say he is bold and forward—I call it courage of the best kind, and what will make him a more than common man in the world. I can not help laughing every time I look at the picture—still I like that boy, and am not ashamed to own it. I do not see why little boys and girls should be laughed at when they act like gentlemen and ladies. I do not believe that boy will ever be seen in a fight with other boys, although he is a brave boy. I would like to have seen him where he was, as they made the picture of him. SARAH.

Sandusky, Vt., Sept. 1, 1859.

Another young correspondent, "John," criticises the attitude of the boy, because "he stands with his hands in his pockets—a habit which our editor has told us is not a polite one." This criticism is perhaps a just one, though in the picture the boy seems to have almost accidentally got his hands where they are, rather than from force of habit. No boy should carry his hands in his pockets, nor put them there except to withdraw a knife or key. Nor should the pocket be turned into a store-house for all sorts of things. A little three-year-old boy may be excused if he makes pretty free use of his first pocket, for his hands or anything else, but boys who have got beyond baby-hood should learn better.....A Tennessee friend of our young readers, sends the following which has

MORE ABOUT FACES.

Children read people's faces long before they learn to read books. This makes me follow up what was said about faces in the August *Agriculturist*. There are no two people in the world with faces exactly alike; and there are no two people in the world exactly the same in character. If you could travel all over the world, and talk with all the people in it, you would not find one person who thinks and feels just as you do. Children commonly think and feel most like their parents, brothers, and sisters, and they generally look most like them. Those twins who look so much alike that you can hardly tell the one from the other, are very much alike in disposition. You have probably heard of the Siamese twins. They are joined by a tie of flesh and blood, which unites their bodies. One is larger than his brother, but they resemble each other very much. If they were unlike each other in their dispositions and actions, they would be very uncomfortable, for they are compelled to

live together. But in some things even the Siamese twins have to agree, by agreeing to disagree—that is, by agreeing to be different. Now we ought not to wish other people to be exactly like ourselves. If all people thought and felt just alike, talking to others would be like talking to one's self, and one might as well be all alone in the world. How foolish, then, for children to quarrel with each other because they can not agree.

You know children, that by learning your letters, and how to spell and read, you can read all kinds of books. So by learning the letters of the face, and how to put them together, you can read all kinds of faces. The letters of a book are called signs, or characters, and so are those of the face. Your mother taught you some of these signs when you were a babe, and you will learn more and more of them as long as you live, so that you can read faces better and better. When your mother smiled upon you, she showed you the sign of happiness, and when she was sad she could not help showing in her face the sign of unhappiness. I will describe some of these signs of character.

Here is a picture of a face with the mouth turned *up* at the corner. What turns it up? A string of red flesh, called a *muscle*, which comes from the corner of the cheek bone and is attached to the corner of the mouth, shortens itself, and in so doing, draws the mouth up, as you see. This muscle is shortened by a little white cord, called a nerve, which comes from the brain, and this nerve is acted upon by the soul, and the soul shows in this way how happy it is. You now know what is meant by the upturning of the corners of the mouth, better than before you reflected upon it.

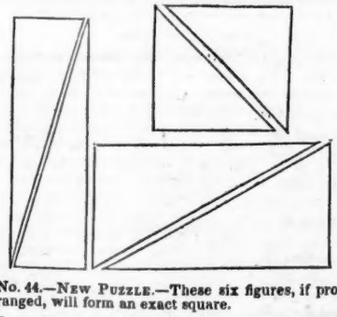
Here is a picture of a mouth turned *down* at the corners. What does this mean? This is just the other way from the other sign, and it must show unhappiness, which is just the opposite of happiness. By carefully examining these pictures, you will see that they are exactly alike, with the single exception of the corner of the mouth, and yet how different they appear. Look out and keep the corner of your mouths always turned the right way.

I will tell you more signs another time, perhaps. (Please do.—Ed.) By learning the letters of the face, you can read it like a book.

ABOUT THE PROBLEMS.

No. 42, Illustrated Rebus.—*Ans.* "When there is a will, there is a way." Correct readings received from: Lucian J. Limmere; Tremaine C. Hurst; C. A. Heilig; Bell Banker; Sarah D. Lord; Lizzie M. Steele; John D. Sabine; Wm. Sharp, (who writes some good things about that picture); John H. Moore; N. H. A.; Joshua Knight; Charles Flowers; Ella Redlon; Lulie Woolley; Elroy M. Avery; Samuel S. Myers; Joseph T. Brown; T. H. and A. L. Smith; D E. Henry; James K. Frew; C. Flora M'Clintock; Barclay Eyre; Lester W., (thank you for the pains taken with the enigma, but we do not publish that kind of puzzles); J. S. Downs; Helen M. Peck; J. T. Reynolds; Matilda F. Van Houten; T. Angelina Munro; W. W. Stapler: M. R. W.; J. Thornley.

No. 43, Rebus. *Ans.* "Many a little makes a mickle," (much.)—Correct answers received from T. Angelina Munro, Joseph T. Brown, C. Flora McClintock.



No. 44.—New Puzzle.—These six figures, if properly arranged, will form an exact square.

S-T-R-A-N-G-E-ST of all. Elroy M. Avery, Monroe Co., Mich., sends us a list of 248 words, actually made up from the letters of the word s-t-r-a-n-g-e.

Into which are thrown all sorts of paragraphs—such as Notes *and* Replies *to* Correspondents, *with Useful or interesting Extracts from their Letters, together with Gleanings of various kinds from various sources.*

Premiums.—Numerous inquiries in regard to these will be found answered in another part of this paper. The premiums offered will be found worthy of attention.

"Indefinite Questions" again, with Answers to Match.—"How long is it necessary to be on a farm, with the aid of books and papers to farm on my own hook?" Ans.—Until you know enough about it. The length of time will depend on ability and application. "Is $4000 too much for a farm and buildings, etc., in Rockland Co.?" Ans.—Not if they are worth the money.

To make Cabbages Head.—H. Selleck, Cook Co., Ill., writes that cabbages which are backward about forming heads, may be caused to do so by dropping a small portion of fine salt into the inside leaves. (!)

Season for Transplanting.—D. Townsend, Greene Co., N. Y. Nurserymen are divided in opinion as to whether Autumn or Spring is the better season for transplanting. Trees that are sufficiently hardy to stand the first Winter, will probably do best transplanted in Autumn, as the soil packs around their roots, and they are ready in Spring to go on with their growth without delay. More depends upon the proper manner of performing the operation than upon the season.

How far apart Should Apple Trees be Set?—L. E. Benson, Shelby Co., Iowa. Apple trees may be set 25 to 35 feet apart, depending upon the character of the tree, and the scarcity of land. Some varieties incline to great lateral growth, others aspire perpendicularly. Thirty feet each way does very well.

Testing Seedling Trees.—T. S. Warger, Clinton Co., Iowa. Fruit may be early obtained from seedling trees by inserting scions taken from them into bearing trees. Treated in this way, varieties of slow growth come into bearing years before the seedling tree would arrive at maturity.

Cultivating Filberts.—Geo. J. Dexter, Tioga Co., N. Y. These could probably be easily raised in this country. They are already grown by a few amateurs. A wild variety (hazel nut) is very common in the Northern and Middle States. Those found in market are chiefly raised in Europe; large plantations are cultivated in England. We cannot say as to the profitableness of the crop.

Cultivating Berberries (*"Barberries."*)—W. R. Handy, Mo. These are very easily propagated either by seeds or roots. Sow the seeds in Spring. It is a mistaken notion that the berberry blasts wheat. They are usually considered a pest at the North. The fruit makes a nice jelly or preserve.

Protecting Fruit from Ants.—S. H. B, Van Buren Co., Mich. If a paper be tied closely around the trunk of the tree and covered with tar, it will probably prevent the ascent of the ants. Soft soap, applied to the trunks of trees, will be beneficial rather than injurious, unless used too freely. We have often recommended it for the removal of bark lice, moss, etc.

Will Barley turn to Oats?—Lewis Neitgett, Belmont Co., O. We answer, decidedly, no! The oats whose appearance among the barley has caused so much discussion, sprang from oat seed and from nothing else. This seed may have been among the barley when sown, or may have been scattered otherwise, which, we can not determine, but it is a *fixed fact* that seed of grain will remain true to its kind, excepting, of course, *varieties* produced by hybridizing or mixing in the flower.

Cardinal Flower.—Miss Ellen M. Davisson, Doddridge Co., Va. The flower you enclosed is the Lobelia *cardinalis*. It is described in botanical works as a very showy red flower, growing in moist places, from one to two feet in hight. It makes a fine addition to the flower border, but requires watering freely.

To Eradicate Brakes (*Pteris Aquilina?*).—G. W. G., New-Hartford Center, N. H. Brakes require for their growth abundant moisture in the soil, as may be seen by their abounding in swampy grounds. Thorough drainage will "dry them up."

White Poland Oats.—G. H. P., Eminence Co., Ind., writes that while other varieties of oats in that vicinity have failed on account of rust, the White Poland is uninjured. He also thinks the grain is more plump, and the straw stronger and less liable to lodge than the common kind.

Charcoal Dust for Manure.—J. Pott, Fulton Co., Pa. Charcoal, of itself, has but little value as a manure. Though it is composed almost wholly of organic matter it is almost imperishable, remaining in the soil year after year without apparent decay. But it acts a very important part in the soil by the property it possesses of absorbing and retaining gases given out by other decomposing substances. It is thus a storeroom from which the rootlets of plants may draw nourishment. It can be used as a top dressing, though we should prefer to plow it in, as it will assist in lightening the soil. Perhaps the best use made of it is to mingle it with fermenting manures.

Treatment of Pasture Land.—J. Hamilton, Hampden Co., Mass. A very full article on this subject is contained in the *Agriculturist* of last year (Vol. XVII, June No., page 173). We can not repeat it, at least not at present.

To Protect Trees from Rabbits.—H. P. Danforth, Monekee, Kansas. Trees may be protected from injury done by rabbits in gnawing the bark, by wrapping paper or straw around their trunks, and covering it with tar. Where a large nursery is infested, they might be fed with apples and strychnine.

To Destroy Moles.—R. W. Turner. If small pieces of lean beef are sprinkled with strychnine or arsenic, and placed in the burrows of moles they will be destroyed. Generally we should spare them, as they feed upon grubs and destructive insects found in the soil. In gardens and grape borders, however, they sometimes become a nuisance, which the above remedy will abate.

Ice Houses—How Made.—Several subscribers, who have made inquiries, will find full directions in last November *Agriculturist*, page 251, Vol. XVII.

Cement Floors for a Dairy.—S. W. Joy, Strafford Co., N. H. A floor may be laid with small stones and hydraulic cement, the latter to cover the stones and be laid even. This is as good a hard floor for a dairy as can be made, except perhaps where large flag stones can be obtained. It is not as liable to be undermined by rats, or to break up, as when built with common brick and mortar.

Brush Kindling.—A. Jones, Suffolk Co., L. I. There is a machine worked by horse-power, for cutting up the waste brush of swamp land. You will find an advertisement in the present number. We have seen the kindling sold in this city, and judge it answers a good purpose.

Cold Frames.—J. Smith, jr., Susquehannah Co., Pa. Your queries are fully answered under "Vegetables for next Spring," page 276, September Agriculturist.

Protection from Lightning.—L. D. Fuller, Livingston Co., Ill. A lightning rod is said to protect a space each way from its base equal to twice the hight of the rod. As it is often difficult to carry a rod very high, it is usually considered more convenient to have several branch conductors made of light rods, terminating in points on different parts of the roof. The points should be gilded or otherwise kept bright, and the fastenings of the rod to the building should be insulated with glass or other non-conducting material, though this is not absolutely necessary.

Gutta Percha for Roofing.—H. A. Merrill, Licking Co., O. In the absence of any reliable information on this subject we should judge that it must be too expensive for general use, particularly as some process of manufacture must be adopted to enable it to withstand the heat, which would otherwise soften and render it worthless on a roof.

Apparatus for Milking Cows.—Thomas Hartley, Ohio Co., Va. Not having seen the cow-milker to which you refer, no opinion can be given as to its particular merits. So far as we have investigated, there are, as yet, only two kinds of apparatus for this purpose in which we have any faith—a calf's mouth and the human hand.

Prescriptions for Diseased Animals.—E. J. Ellison, Hamilton Co., O. It would be impossible to prescribe safely for your horse without personal examination of his case. If he is sufficiently valuable, avail yourself of the best veterinary skill within reach—otherwise, let him rest and take his chances. He may only need a little more letting alone both in doctoring and working.

Proper Age for Gelding Horses.—D. A. T., Dauphin Co., Pa. Horses may be castrated even after they have grown to maturity, but the operation is then

very hazardous. If carefully done between the ages of four and twelve months, there need be no great risk.

Carbon Oil.—This has been used for a year, both in our office and at home, and also by most of those engaged in our office, as well as by several friends and neighbors. We like it better than any other burning material we have yet tried. Last Winter we were troubled to get a supply, owing to some difficulty at the petroleum fountain whence it is obtained, and we are glad to find by our advertising columns that a full supply is available.

Spalding's Liquid Glue.—Several subscribers ask our opinion of this article advertised in this journal. We have had occasion to use it but little as yet. So far as we have examined and tried it, it appears to be a good preparation, possessing the properties of common glue, with the convenience of being dissolved, and always ready for immediate use. Some of our employees, who have used it in "sticking together" sundry household articles, speak quite strongly in its favor.

Farming in Pennsylvania—New Railroad Facilities, etc.

During the past month, while the preceding pages of this paper were passing through the printer's hands, we made a week's excursion for observation *through* a portion of Pennsylvania, which we had before only passed across or around. We refer to the splendid Valley running from Easton, nearly southwest, along the south side of the "Blue Mountain Ridge."—Allentown, Reading, Lebanon, Harrisburg, Mechanicsburg, Carlisle, and Chambersburg, all lie in this Valley. Few better farming sections exist in the world, and we could not wonder that the most of these lands have usually been occupied by the same families and their direct ancestors since the first settlement of the country. No one owning a homestead here, could hope to better himself by a removal. We gathered many useful observations for future use.

One interesting item we must now refer to, viz.; the opening of the East Pennsylvania R. R. from Reading to Allentown. This *completes* an important route—one important not only to the Valley through which we passed, and to other portions of Pennsylvania, but to the entire West. Starting from New-York, the route is by the N. J. Central to Easton, Pa.; thence via the Lehigh Valley R. R., to Allentown; thence via the new Eastern Penn. R. R. to Reading; thence via the Lebanon Valley Branch of the Reading R. R. to Harrisburg. These several roads connect so as to really form an unbroken, single route. From Harrisburgh the same cars can continue southwest, via the Cumberland Valley R. R., to Chambersburg, and soon still further south, following the above great farming Valley that extends across Maryland and Virginia, into North Carolina. All the Pennsylvania portion of this Valley is now brought into direct connection with New-York, which with the previous triple or quadruple connections with Philadelphia, will give direct market facilities unsurpassed. Passing by the advantages for forwarding the staple grain crops, these new facilities should stimulate farmers to give more attention to cattle and sheep raising, and especially to fruit growing. Beef cattle from the counties of Franklin, Cumberland, and others adjoining, can now go either by cars or on foot to Philadelphia, as hitherto, or be sent by cars direct to the N. Y. market, as may be desired. We noticed throughout most of the section we visited that fruit trees appear to flourish well; indeed, though this was generally called a poor fruit year, we saw more and better apples than any where else this season. The N. Y. city market is almost always poorly supplied with this staple fruit. Note on the next page the present wholesale prices of only fair apples. From the very location of N. Y., fruit will *always* be in demand at *high* prices. This city has not so large an immediate back-ground, as Philadelphia, to supply fruit. The newly opened route will furnish one additional source. We sugest to the farmers of the Valley we visited, that they can and should go at once into the culture of fruit more extensively. They will find profit in it. Let there be a host of young apple orchards put out this very Autumn. We were glad to hear favorable reports of the reliability of Miller's Nurseries, near Carlisle.

We have omitted to mention that the new route extends westward from Harrisburg, to Pittsburg, via the Penn. Central R. R., and from Pittsburg, by railroads leading all over the Great West. The connections are so complete that Freight cars may now be loaded in Iowa and sent *here, without the necessity of a single change of bulk*—a distance of more than 1,200 miles! Almost all the railroads of the Great West are directly connected with this route. The very statement of these vast and increasing facilities of communication, is one of great interest to farmers.

Our visit in Pennsylvania, though not the first by any means, was both pleasant and profitable, and we shall take early occasion to visit other portions of the State which is entitled to be called the "Keystone" in more respects than one. The names of more than ten thousand Pennsylvania subscribers upon our own mail books, are strong evidences that the farmers of that State are alive to improvement.

Our thanks are due to a number of gentlemen who contributed not a little to make our journey both pleasant, and profitable in the observations gathered. Among others we ought to name Mr Kesler, Ed. of Reading Adler, the Prest. of Berks Co., Agr. Soc., and Mr. J. L. Getz, Ed. of Reading Gazette: Prof. Marlatt, Prest. of Irving Female College, at Mechanicsburg, and Robert Bryson, Esq., of the same place; Messrs. I. W. Deal, A. Hurst, and J. S. Nixon, at Chambersburg; and others. We regret that being straitened for *time* prevented a visit to several other active friends of the *Agriculturist*, at Churchtown, and elsewhere.

PREMIUMS!

Improvement—Onward—Upward, is our motto. We intend to make each succeeding volume better than its predecessor, *in every respect*. During 1859 the *Agriculturist* has gone into more than 20,000 new families. We desire to extend its sphere of usefulness still wider, and to this end, we offer the following *premiums* to those who will assist in the work of extension. In selecting the articles, we have aimed to get such as are *useful*, and as have been most frequently called for by our readers.—*Each article offered is the best of its kind, and every one will be selected by the publisher from the very best manufactured. They will be even better than those sold in the market at the prices named, when possible to select better.* Through the kindness of the manufacturers we get these articles for premiums, and for these only, at the bare cost of making, or we could not offer them as we do. The premiums are certainly liberal, when we take into the account the cost and character of the paper, and the low price at which it is furnished.

N. B. *These premiums are not offered for competition, but as direct* PAY *for time, labor, and expense incurred by canvassers. The premiums are absolute in each case, and not dependent upon what some unknown person is doing. Every canvasser knows just what he or she is working for.* ☞See remarks following the premiums, especially the last one.

Premium I.—A liberal distribution of *valuable seeds* will be made during the Winter, to ALL regular subscribers alike, whether single or in clubs, and whether received from agents, or otherwise. (A seed depository will be established in California for the convenience of subscribers on the Pacific Coast.)

Premium II.—Every person sending in a club of 10 *new* subscribers at 80 cents each, may order a free copy of either Vol. XVI, or Vol. XVII, or Vol. XVIII, which will be sent in numbers, post-paid.

Premium IV.—Every person sending 15 *new or old* subscribers at 80 cents each, will be entitled to 16 copies (that is one extra copy), for the coming year.

Premium V.—Every person sending 25 *new* subscribers at 80 cents each, will be entitled to the *three* Volumes, XVI, XVII, and XVIII, sent in numbers post-paid.

Premium VI.—Every person sending 30 *new* subscribers at 80 cents each, will be entitled to a silver-cased *pocket Microscope*—with Coddington lens. Value $4. Sent by mail securely packed and post-paid. (See Premium 18.)

Premium VII.—Every person sending 45 *new* subscribers at 80 cents each, will be entitled to a copy of the large new *Pictorial Edition of Webster's Unabridged Dictionary*. Price $6.50. It weighs 8½ lbs, and can go by express, or be sent by mail at 1 cent per ounce within 3000 miles, or 2 cents per ounce over 3000 miles. (Expense after leaving the city to be paid by recipient.)

Premium IX.—Every person sending 144 *new* subscribers at 80 cents each, (or 100 at $1 each), will be presented with one of Wheeler & Wilson's best **$50 Sewing Machines**, new from the factory, and of the very best make. There is no better working machine than this made, as we have proved by nearly two year's use in our own family. We want no better.—The machines will be selected at the manufactory, be well boxed, and forwarded without expense to the recipient, except for freight charges after leaving the city. Full instructions for setting up and using go with each machine.

Premium XII.—To every person sending 130 *new* subscribers at 80 cents each, (or 95 at $1 each), we will present *Appleton's New American Encyclopædia*, now in course of publication, consisting of *fifteen large volumes* of 770 pages each. This is a magnificent work, forming a whole library embracing every topic of human knowledge. Eight volumes are now ready, and the remaining seven will be furnished as fast as issued. Publisher's price, $45.

Premium XIII.—To every person sending 260 *new* subscribers at $1 each, or 330 at the lowest club price (80 cts. each), we will present one of *Allen's Mowing Machines*, with sundry improvements now being added. This is one of the best we have seen in operation. Price $115.

Premium XIV.—To every person sending 65 *new* subscribers, at 80 cents each, we will present one of the best *Eagle Plows* (2-horse). Price $11. This we believe is the best general farm plow in use.

Premium XV.—To every person sending 55 *new* subscribers at 80 cents each, we will present the best *Subsoil Plow* (two-horse), price $8; *or* one of the best *Horse-Hoes*, price $8; *or* one of the best *Straw and Hay Cutters*, price $8. These are all first quality, well-made, and useful implements.

Premium XVI.—To every person sending 48 *new* subscribers, at 80 cents each, we will present one of the best *Steel-tooth Cultivators*. Price $7.

Premium XVII.—To every person sending 45 subscribers at 80 cents each, we will present either the Dictionary, (premium 6), or one of the best *Hand Corn Shellers*. Price $6 50.

Premium XVIII.—To every person sending 30 subscribers at 80 cents each, we will present either the microscope, (premium 3,) or a *Double mold-board (ridging) Plow*. Price $3.50.

Premium XIX.—Books. Whenever desired, instead of other premiums, the publisher will pay premiums in books as follows: Every person making up a club of 20 or more *new* subscribers, may select any Agricultural or Horticultural Books from A. O. Moore's Catalogue, (which is advertised on page 316 of this month's paper) to the amount of 10 cents for every subscriber, sent in at 80 cents each. Persons making up a club for any of the premiums, and getting some names over the required amount, will be entitled to books for the surplus names. Thus, a person getting 55 subscribers can take for 45 names either premium VII. or XVII, and also $1 worth of books for the extra 10 names; and so in other cases.

[SPECIAL PREMIUMS.]

[Several young men have expressed to us a desire to secure for themselves a good *Watch*. There has been so much humbug and deception in articles of this kind that we have hitherto declined any such offers. However, to meet the oft repeated requests, we have concluded to for once make an offer of this kind. The *American Watch Company*, of Waltham, Mass., are putting up very valuable and reliable time-pieces, which we can offer with confidence, and we have arranged with the company to get the watches we desire, direct from the manufactory, of the best possible make and *bona fide* character. Each watch will be accompanied with a written *warrantee* direct from the Company; so that the watches we give, may be relied upon in every respect.]

Premium XX.—To every person sending 130 *new* subscribers at 80 cents each, (or 95 at $1 each), we will present either premium XII, or a $45 Silver Lever Watch, made by the American Company. The running works of this watch are of the same class as the $100 gold watches, jewelled, and chronometer balance. The case is a "Hunter," or closed one, the face opening by a spring. This is as good a watch as we would wish to carry. The price, $45, is as low as they can be bought at retail at the manufactory.

Premium XXI.—To every person sending 250 *new* subscribers at 80 cents each, (or 150 at $1 each), we will present a $75 Gold Lever Watch, of the same make as the above. The case is *gold*, Hunter, and *engraved*. No better watch than this can be obtained for $75 in this country.

REMARKS.—1. *The above premiums, except No. IV, are all for* NEW SUBSCRIBERS ONLY, *as we can only afford to pay premiums for once on the same subscriber. But* ☞*in making up any premium lists, three renewals of old subscriptions, collected and forwarded by the canvasser, may always be counted as one* NEW *name.* ☞*Names need not all be at the same Post Office.*

2. Of course but one premium can be paid on the same name. The canvasser will choose his own premium. Any one striking for a higher premium, and failing to get names enough, can still fall back upon a lower one.

3. Every person collecting names for premiums can send in the names with the money as fast as received, so that the subscribers may begin to receive their papers; but if designed for premiums, a double list of each lot of names should be sent, one of them marked at the top, "For premiums," and with the name of the sender. These duplicate lists will be kept on file by themselves to be referred to in making up the premium when any person has completed sending in names for Volume XIX.

4. The above premiums are offered for new subscribers for Volume XIX (1860), whenever received. Canvassers will have three or four months for completing their lists, but the premium will be paid as soon as any list is made up.

5. The offer of extra copies to the subscribers themselves, when received before Nov. 1st, will greatly facilitate the work of the canvasser, and *now* is the most favorable time to *begin* the work of gathering names.

Market Review, Weather Notes, &c.

AMERICAN AGRICULTURIST OFFICE,
NEW YORK, Monday Evening, Sept. 19, 1859.

Sales of Breadstuffs have been more extensive during the past month. *Receipts* have been very large and are increasing. The demand has been more active. The rapid reduction of the stock of old Flour and Wheat on hand, caused an advance of prices during the early part of the month. The heavy receipts of the new crop have, however, checked the advance, and the tendency just now is to lower prices. The sales are mostly to the home trade, little being done by speculators. Shippers are cautious; they are waiting for lower rates before buying freely. The Wheat received thus far, has been of very good average quality, and is received generally in good condition. The *quality* of new Wheat received at the principal Western markets, has been so much superior to that of the two preceding years, that the Chicago Board of Trade have restored the old standards of quality, which had been lowered to conform to the inferiority of the receipts of those years. While the quality of this

year's product is equal to what was anticipated, it is now thought that the *amount* of the yield, especially in Ohio, has been overestimated. This circumstance has not thus far materially affected trade. In the absence of an active export demand, it is thought that its influence will not be greatly felt, since the receipts have continued to be heavy, and have been pressed on the market especially during the past six or eight days..... The arrivals of *Corn* have not equalled the demand of buyers, and an advance in prices has resulted. Some disposition to speculate has been occasioned by the accounts of injuries by frost to the growing crop.....In the North-western States the great topic of interest just now is the effect of the frosts at the end of August and first of September. It appears that they extended south to La Salle in Illinois, and were very severe in Michigan, Northern Indiana, Wisconsin, and Iowa. Buckwheat and all late vines were pretty well used up. Late Corn, especially on low lands, was cut down so as to prevent its maturing perfectly. But it is believed that the largest portion of the Corn crop, particularly in sections where it forms the great staple, was so forward that frosts would do but little harm. The country has suffered a far greater loss in the drouth of the Summer than in the frosts of the Fall .... Rye, Barley, and Oats have been more frequently sought after.. .. Cotton has been moderately inquired for at easier prices. The annual statement of the trade in this staple, for the year ending the 1st of September, makes the crop 3,851,481 bales, against 3,113,962 bales, the crop of the previous year.....Provisions have fluctuated considerably, closing with a fair general inquiry at advancing prices for hog products.....The transactions in most other kinds of Produce have been of average magnitude, without occasioning any very noticeable alteration in prices.

TRANSACTIONS AT THE N. Y. MARKETS.

RECEIPTS.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley*	*Oats*
27 bus days *this* mon.	252,744	289,316	320,008	20,180	65,060	346,509
27 bus. days *last* mon.	145,331	243,575	377,347	9,874	9,000	410,000
SALES.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley*	
27 business days *this* mon.	366,150	343,850	575,400	29,500	36,10	
27 business days *last* month.	266,933	262,650	503,200	25,600	2,500	

Breadstuffs exported from N. Y., from Jan. 1 to Sept. 14.

	1858.	1859.
Wheat Flour, bbls.	1,046,653	481,941
Rye Flour, bbls.	4,683	4,096
Corn Meal, bbls.	47,959	58,940
Wheat, bush.	2,895,027	32,765
Corn, bush.	1,265,963	163,922
Rye, bush.	12,487	———

The following are the EXPORTS of the principal kinds of BREADSTUFFS, from the Atlantic ports of the United States, during the year ending Sept. 1st, as compared with the annual export for a number of years preceding:

TO GREAT BRITAIN AND IRELAND.

From	*Flour, bbls.*	*Wheat, bush.*	*Corn bush.*
New-York,	98,753	403,742	314,056
New-Orleans	4,382	3,375	2,250
Philadelphia	2,029	20,281	14,081
Baltimore	———	———	7,677
Boston	1,293	———	———
Other Ports	———	11,612	3,949
Total exports from U.S.	106,457	439,010	342,013
Year ending Sept. 1, 1858	1,295,430	6,555,643	3,317,802
Year ending Sept. 1, 1857	849,600	7 479,401	4,746,278
Year ending Sept. 1, 1856	1,641,265	7,956,406	6,731,161
Year ending Sept. 1, 1855	175,209	324,427	6,679,138
Year ending Sept. 1, 1854	1,846,920	6,038,003	6,049,371
Year ending Sept. 1, 1853	1,600,449	4,823,519	1,425,278
Year ending Sept. 1, 1852	1,427,442	2,728,442	1,487,398
Year ending Sept. 1, 1851	1,559,584	1,496,355	2,205,601
Year ending Sept. 1, 1850	574,757	461,256	4,753 358
Year ending Sept. 1, 1849	1,137,556	1,140,194	12,685,260
Year ending Sept. 1, 1848	182,583	241,309	4,390,226
Year ending Sept. 1, 1847	3,155,845	4,000,359	17,157,659
Total for thirteen years	15,553,097	43,684,314	71 970,543
Averaging yearly	1,196,392	3,360,334	5,536,196

ANNUAL EXPORTS TO THE CONTINENT OF EUROPE FROM U. S. PORTS.

	Flour, bbls.	*Wheat, bu.*	*Corn, bu.*	*Rye, bu.*
Year ending Sept. 1, '59	51,388	57,845	25,519	———
Year ending Sept. 1, '58	303,100	390,428	16,848	13,100
Year ending Sept. 1, '57	483,344	2,875,653	543,590	216,162
Year ending Sept. 1, '56	748,408	2,610,079	282,083	1,975,478
Year ending Sept. 1, '55	7,763	4 972	308,428	35,569
Year ending Sept. 1, '54	791,028	1,904,893	90,556	318,882

COMPARATIVE COTTON CROP STATEMENT.

	Bales.		Bales.
1858—9	3,851,481	1840—1	1,634,945
1857—8	3,113,962	1839-40	2,177,835
1856—7	2,939,519	1838—9	1,360,532
1855—6	3 527,845	1837—8	1,801,497
1854—5	2 847,339	1836—7	1,422,9 10
1853—4	2 930,027	1835—6	1,360,725
1852—3	3,262,882	1834—5	1,254,328
1851—2	3,015,029	1833—4	1,205,394
1850—1	2,355 257	1832—3	1,070,438
1849-50	2,096,706	1831—2	987,547
1848—9	2,728,596	1830—1	1,038,848
1847—8	2 347 634	1829-30	976,845
1846—7	1,778,651	1828—9	870,415
1845—6	2,100,537	1827—8	727,593
1844—5	2 394,503	1826—7	957,281
1843—4	2,030,409	1825—6	720,027
1842—3	2,378,875	1824—5	569,249
1841—2	1,683,574	1823—4	509,158

EXPORT OF COTTON TO FOREIGN PORTS.

	To Great Britain.	*To France.*	*To North of Europe.*	*Other F. Ports.*	*Total.*
Grand total	2,019,252	439,096	330,012	221,443	3,021,403
Total last year	1,809,966	384,002	215,145	181,342	2,590,455
Increase	209,286	66,694	114,867	40,101	430,948

CURRENT WHOLESALE PRICES.

	Aug. 18.	Sept. 19.
FLOUR—Superf to Extra State	$3 95 @ 3 50	$4 15 @ 4 55
Common to Fancy Western	3 90 @ 4 20	4 15 @ 4 50
Extra Western	4 20 @ 6 75	4 55 @ 8 50
Fancy to Extra Genesee	4 65 @ 6 75	4 90 @ 7 50
Super. to Extra Southern	4 65 @ 6 25	4 85 @ 7 00
RYE FLOUR—Fine and Super.	3 56 @ 4 20	3 70 @ 4 30
CORN MEAL	3 90 @ 4 15	3 75 @ 4 15
WHEAT—Canada White	1 10 @ 1 25	1 10 @ 1 25
Western White	1 05 @ 1 30	1 10 @ 1 30
Southern White	1 25 @ 1 45	1 20 @ 1 35
All kinds of Red	65 @ 1 25	70 @ 1 22
CORN—Yellow	79 @ 83	84 @ 90
White	80 @ 85	84 @ 90
Mixed	77 @ 79	83 @ 84
OATS—Western	37 @ 40	37 @ 40
State	35 @ 38	36 @ 39
Southern	30 @ 36	30 @ 36
RYE	@ 75	75 @ 80
BARLEY	55 @ 67½	55 @ 75
White Beans	80 @ 1 00	80 @ 87½
HAY, in bales, per 100 lbs	50 @ 80	60 @ 90
COTTON—Middlings, per lb	11¾ @ 12¾	11¾ @ 12
RICE, per 100 lbs	3 00 @ 4 25	2 87 @ 4 00
HOPS, crop of 1859 per lb	20 @ 25	11 @ 15
PORK—Mess, per bbl	13 67 @13 75	15 00 @15 12½
Prime, per bbl	9 62 @ 9 75	10 50 @10 62½
BEEF—Repacked Mess	8 00 @10 50	7 50 @ 9 50
Country mess	7 00 @ 8 00	6 00 @ 7 00
HOGS, Dressed corn, per lb	6¾ @ 7	7¾ @ 8¼
Lard, in bbls per lb	10½ @ 11	10¾ @ 11¼
BUTTER—Western, per lb	12 @ 17	12 @ 16
State, per lb	14 @ 20	16 @ 21
CHEESE, per lb	4 @ 9	6 @ 9¾
EGGS—Fresh, per dozen	14½ @ 15	15 @ 16½
POULTRY—Fowls, per lb	10 @ 12½	11 @ 14
Turkeys, per lb	14 @	14 @ 16
FEATHERS, Live Geese per lb	42 @ 52	42 @ 52
SEED—Clover, per lb	8 @ 9¾	9 @ 9¾
Timothy, per bushel	2 00 @ 2 75	2 00 @ 2 75
SUGAR, Brown per lb	4¾ @ 8	5¾ @ 8
MOLASSES, New-Orleans, prgl	39 @ 42	39 @ 42
COFFEE, Rio, per lb	10 @ 11¾	10½ @ 12¼
TOBACCO—Kentucky, &c. pr lb	4¾ @ 13	4¾ @ 12
Seed Leaf per lb	6 @ 25	6 @ 25
WOOL-Domestic fleece, per lb.	35 @ 55	35 @ 55
Domestic, pulled, per lb	30 @ 50	30 @ 50
HEMP—Undr'd Amer'n pr ton	140 @150	140 @150
Dressed American, per ton	190 @210	190 @210
TALLOW, per lb	10¼ @ 10¾	10¾ @ 10¾
OIL CAKE, per ton	30 00 @36 50	30 00 @37 00
APPLES—Dried, Per lb	6½ @ 7¾	6 @ 7½
Dried Peaches—pr lb., South'n	10 @ 13	10 @ 14
POTATOES—Mercers, p. bbl	1 50 @ 1 75	1 25 @ 1 75
Peach Blows, per bbl	2 00 @ 2 50	1 50 @ 2 00
Sweet, Virginia, per bbl	@ 4 00	2 25 @
Delaware, per bbl		2 00 @ 2 50
Cabbages, per 100	2 00 @ 5 00	2 50 @ 3 00
Onions, Red, per bbl	2 00 @ 2 50	1 25 @ 1 50
Tomatoes, per bushel	31 @ 37	31 @ 50
Squashes, Marrow, p. bbl	1 25	88 @ 1 00
Turnips, Rutabage, per bbl		1 00 @ 1 25
APPLES, Winter, per bbl		2 00 @ 2 50
Common, per bbl		1 25 @ 1 75
PEARS, Bartlett, per bbl		10 00 @20 00
Common, per bbl		2 50 @ 3 50
Peaches, p. basket	1 00 @ 2 00	1 25 @ 3 00
Plums, Green Gages, and Damson p. bush	3 00 @ 4 00	5 00 @ 6 00
Watermelons, p. 100	12 00 @35 00	5 00 @15 00
Muskmelons, p. bbl	3 00 @ 3 50	75 @ 1 00
Grapes, Isabella&Catawba, p.lb		10 @ 15

N. Y. Live Stock Markets.—THE CATTLE MARKETS have been abundantly supplied for the past month; the very large number of 19,530 were received for the four weeks ending Sept. 14th, or a weekly average of 4,884. At the above date 5,930 beeves were sold, being the largest weekly receipts since the Fall of 1855. Prices declined about 1c. ℔ lb at the general market, ranging at 10c.@10¼c. ℔ lb net, for the best, or prime animals; 8¼c. @9¼c. for medium to good; 7c.@8c. for poor stock, and 5½c.@6½c. for "scallawags," with a general average of 8c. for all the cattle sold.

VEAL CALVES.—The receipts continue about as last month, being 2,495 for the past four weeks. The demand is good, and prices have been a shade higher, or 6c.@7½c. ℔ lb, live weight, for the best, and 5c.@5½c. for common calves.

SHEEP AND LAMBS.—Receipts of live sheep during the last four weeks have been even greater than for the previous month, reaching the before unprecedented number of 19,426 for a single week; 60,398 for the month, or an average of 15,100 per week. The markets have been glutted most of the time, and farmers wishing to buy stock for Winter feeding have been more fortunate than those having to sell. In such an overstocked market it is impossible to sell by weight. Prices range at $1 @ $2 per head for poor stock; $2.50 @ $4 00 for good sheep. A few large, fat ones bring $5 @ $7 each. These prices are about equivalent to 3½ @ 4½ c. per lb. live weight.

HOGS.—Receipts for the four weeks just ended number 14,958, which is a slight decrease from last month. The market has improved in briskness, and good, fat, corn-fed hogs are worth 6c. @ 6¼c. per lb. live weight, or fully ¼c. per lb. higher than one month ago.

The Weather during the past four weeks has been mostly pleasant, but cool for the season, rather too cool for late corn, which has been damaged in the North and Northwest by two remarkable frosts. It has, however, been very favorable for Fall work. OUR DAILY NOTES, condensed, read thus: *August* 19. clear A. M., light rain P. M.—20, 21, 22, clear and fine—23, clear, rain at night—24, cloudy, A. M., heavy rain P. M.—25, heavy rain A.M., clear P. M —26, clear and warm, with showers at night —27, clear and warm A. M., showery P. M —28, cloudy A. M., clear P M.—29, 30, 31, and *September* 1, 2, clear and cool, frosts North and Northwest—3, clear, rain at night—4, frost at Northwest, clear and warm—5, cloudy A. M, slight rain P. M.—6, 7, 8, 9, clear and fine—10, cloudy—11, drizzling A.M., showers P. M.—12, clear and fine—13, cloudy A. M., showers P. M.—14, 15, clear and cold, hard frost North and West—16, cloudy A. M., rain P. M. and at night—17, severe northeast storm, heavy rain, high wind, prostrating much corn, and injuring many shade trees—18, storm cleared up—19, beautiful day—20, slight rain, A. M., cleared up P. M.

Acknowledgement.

We have received numerous invitations to address Agricultural Societies at their Annual Gatherings, also many Complimentary Tickets, and several notices of election as an Honorary Member. So far as practicable we have replied personally to each; but lest we may have overlooked any, or any communications may have failed to reach us, as we suspect to have been the case in an instance or two, we beg to here tender our grateful thanks for the kind consideration extended. The generous appreciation of the labors of this journal, will lead us to still greater efforts to merit a continuation of these evidences of good will on the part of our readers. Our multiplied office labors consequent upon an extending circle of readers and correspondents, prevent our visiting so many of the Agricultural Exhibitions as we would desire.

☞ **The circulation of the Agriculturist to regular subscribers, is much larger than that of any other Agricultural or Horticultural Journal in the world.**

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WM. DAY, Morristown, N J.

WM. R. PRINCE & CO., Flushing, N. Y., in addition to articles specified in their other advertisements in this paper, offer the following:

25,000 PÆONIES, comprising 115 splendid Tree varieties, and 208 splendid Herbaceous varieties, being the only extensive collection in the Union. BULBOUS FLOWER ROOTS of every class and variety. DAHLIAS, select and beautiful varieties, all as priced in a Special Catalogue.

☞ *See our 3 other Advertisements in this number.*

PARSONS & CO.

AT FLUSHING, NEAR NEW YORK,

Offer a general assortment

OF

FRUIT AND ORNAMENTAL TREES AND PLANTS.

PEARS, DWARF, of very fine quality.
PEARS, STANDARD, from 1 to 5 years.
APPLES, STANDARD AND DWARF, of fine size and form.
CHERRIES, STANDARD AND DWARF.
PEACHES, PLUMS, APRICOTS and NECTARINES.
MULBERRIES, FIGS, WALNUTS, and FILBERTS.

All the above can be furnished of suitable size and form for training on *walls* and for *pot culture.*

BLACKBERRIES and RASPBERRIES in quantity.
CURRANTS of the best sorts.
GOOSEBERRIES and STRAWBERRIES.
RHUBARB in quantity.

Our GRAPES are this season of very fine quality, and we are confident will give entire satisfaction.

The stock for *Vineries* embraces besides the old favorite sorts, also many choice new varieties. Among them are

Golden Hamburg,	Lady Downs' Seedling,
Muscat Hamburg,	Trentham Black,
August Muscat,	Marchioness of Hastings, &c.

These are all grown in large pots, and are very superior.

The collection of HARDY VINES embraces, with the standard older sorts, also plants of large size of

Delaware,	Logan,
Diana,	To Kalon,
Anna,	Union Village,
Canadian Chief, &c.,	&c., &c.,

Concord, Hartford Prolific, Rebecca, Isabella, and Catawba, we can offer at reduced rates by the THOUSAND.

To our ORNAMENTAL DEPARTMENT we would also invite the careful attention of buyers.

THE TREES FOR AVENUES AND LAWNS

are of fine size and form, and are well known to thrive in many different localities.

Our stock of FLOWERING SHRUBS and VINES is very large, and we can supply these at low rates by the quantity.

EVERGREEN TREES AND SHRUBS

of many sizes form a prominent feature in our establishment—and in addition to those required by amateurs, we have now a large stock of plants.

OF SMALL SIZE,

to which we invite the attention of

THE TRADE.

We can offer these at such rates, as, when freight charges and risks of transportation are taken into account, will be found to be lower than plants of equal quality from Europe. Of the large variety we can here name only

NORWAY SPRUCE, 1 foot and upwards, $30 per 1000.	SIBERIAN ARBOR VITÆ, $70 per 1000.
Junipers of many sorts.	Hollies, $80 per 1000.
Rhododendrons, quite hardy.	Yews, quite hardy.
Retinospora.	Podocarpus,
Taxodium pendulum,	Wistarias. &c., &c., &c.

For details respecting varieties, prices, &c, we refer purchasers to our Retail and Wholesale Catalogues, which will be forwarded on application.

The Syracuse Nurseries

OFFER FOR SALE FOR THE FALL OF 1859,

The following Trees, Plants, &c.

APPLE—3, 4 and 5 years old; a very general assortment. Dwarf; 2 years old, very fine.
PEAR—1 and 2 years old; Dwarf and Standard, so extensive in variety as to enable us to fill the most particular order. Also, several choice varieties of bearing age.
CHERRY—1 and 2 year old; Dwarf and Standard, beautiful Trees.
PEACH, APRICOT, PLUM AND NECTARINE—Best varieties; trees very vigorous.
CURRANTS—White and Red Dutch, Victoria, and twelve newer varieties; quality of plants unsurpassable
GOOSEBERRIES—Houghton's Seedling, a good stock, and some of the best English sorts.
BLACKBERRIES—Lawton or New Rochelle, Dorchester, and Newman's Thornless.
RASPBERRIES AND STRAWBERRIES—Assortment especially large and desirable. Prices very low.
GRAPES—An immense stock of Isabella, Catawba, and Clinton, 1 and 2 years old, exceedingly strong and well rooted; also, very fine plants of the *Concord, Delaware, Diana, Hartford Prolific, Northern Muscadine, Rebecca,* and *Union Village;* the seven for $6.
EVERGREENS—European Silver Fir; American and Norway Spruce; American Arbor Vitæ; Balsam; Hemlock; Austrian, Corsican, and Scotch Pines; ranging from 2 to 6 feet.
DECIDUOUS—American and European Mountain Ash; Weeping Ash; American Elms; English Weeping Elms, (very graceful); Horse Chestnuts; Catalpas; European Larch; Silver and Sugar Maples; Linden; Tulip Trees; (Nursery grown and very fine,) Black Walnut and Weeping Willow.
SHRUBS—Altheas; Fringe Trees, purple and white; Double Flowering Almond, Cherry and Peach; Honeysuckles; Lilacs; Snowballs; Sweet Brier; Spireas; and a great many others. See Catalogue No. 3.
ROSES—One of the best and largest collections in America; best plants of the Aususta at $1.
DAHLIAS, PÆONIES, BORDER PLANTS, BULBOUS ROOTS, &c., in great variety.
RHUBARD—Cahoon's Giant and Linnæus: the best two varieties without question; very low by the dozen, 100 or 1000.
ASPARAGUS—Very strong, 1 and 2 year old roots.
HEDGE PLANTS—Osage Orange; Honey Locust; Privit, 1 and 2 years; Red and White Cedar.

Our articles generally are of the finest growth, and will be sold at the lowest rates. For particular information see

OUR SEVERAL CATALOGUES, VIZ:

No. 1.—A Descriptive Catalogue of all our productions.
No. 2.—A Descriptive Catalogue of Fruits.
No. 3.—A Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c.
No. 4.—A Descriptive Catalogue of Dahlias, Green House, and Bedding Plants, &c.
No. 5.—A Wholesale Catalogue for Nurserymen and Dealers. Forwarded on receipt of a stamp for each.

SMITH & HANCHETT.

Syracuse, August, 1859.

PRICED Descriptive CATALOGUES of TREES, PLANTS, &C.—WM R. PRINCE & CO., Flushing, N. Y., have just issued and will send gratis to applicants, the following Catalogues. No. 1. Fruit and Ornamental Trees, &c.—No. 2. Roses and other Flowering Plants.—No. 4 Wholesale Price List for Nurserymen.—No. 6. Strawberries of 146 varieties and culture. No. 9 Bulbous Plants, Pæonies, Dahlias, &c. No. 14 Grapes of 150 Native varieties and others, Raspberries, Currants, and all small Fruits.

☞ See W. R. P. & Co.'s 3 other Advertisements in this No.

Fruit and Ornamental Trees.

The Subscribers offer for sale the coming Fall, a superior stock of Nursery Products, viz: 30,000 Apple Trees, 2 to 4 years from the bud. 30,000 Peach Trees, 1 year from the bud. Pear Trees, standard and dwarfs. Cherry do. do. do. Hartford Prolific, Isabella, Concord, Diana and Delaware Grape Vines. Norway Spruce, Balsam Firs, American Arborvitæs, Hemlocks, Larch, Horse Chestnuts, Mountain Ash, Silver, Norway, Ash-leaved and Sugar Maples, &c., &c Also, 50,000 Sugar Maple seedlings, 2 years in seed bed, (fine.) 50,000 Elm do. do. do. and a general assortment of other Nursery articles.

Nurserymen, Dealers and Planters are invited to call.

STEPHEN HOYT & SONS,
Aug. '59. New Canaan, Conn.

TREES! TREES! TREES!

For the Autumn of 1859.

The subscribers invite the attention of Nurserymen, Dealers, and Planters to their large and fine stock of

APPLE TREES—Standard and Dwarf. One to four years old. Strong and well grown.
PEAR TREES—DWARF. 80,000 two and three years—fine, strong, and healthy trees, and of the most approved sorts on the quince.
PEAR TREES—STANDARD. A large and fine assortment of the most desirable kinds.
CHERRY TREES—STANDARD AND DWARF. 1, 2, and 3 years—in large supply and beautiful trees.
PEACH TREES—one year. PLUM—two years. ORANGE QUINCE, APRICOTS, and NECTARINES.
CURRANTS—Red and White Dutch, Victoria, Cherry, White Grape &c.
GOOSEBERRIES—Houghton Seedling, and best English sorts.
RASPBERRIES—The leading sorts in large quantities.
BLACKBERRIES—Lawton largely—Dorchester and Newman's Thornless.
RHUBARB—Myatt's Linnæus, Cahoon's Mammoth, and Downing's Colossal—mostly Myatt's Linnæus.
GRAPE VINES—With the best facilities *for,* and the best care *in propagating,* we are enabled to offer Delaware, Diana, Rebecca, Concord, Hartford Prolific and many other new and old sorts, with the best Foreign Varieties for growing under glass—strong plants by the dozen or hundred or larger quantities.
EVERGREENS—Norway Spruce, Balsam Fir, Scotch, Norway, and White Pines, Red Cedar, Am. and Siberian Arbor Vitæ.
DECIDUOUS TREES AND SHRUBS—Horse Chestnut, Mountain Ash, Am. Linden, Maples, Am. Chestnut, Am and European Ash, Judas Tree, Laburnum, Snow Ball, Purple Fringe, Altheas, etc.
ROSES—Climbing and Hybrid Perpetuals—a fine assortment of strong plants.
HEDGE PLANTS—Am. Arbor Vitæ, Red Cedar, Privet, and Osage Orange
STOCKS FOR NURSERYMEN—Anger's Quince, Pear, Plum, Mazzard and Mahaleb Cherry, 1 year, and Apple Stocks, 2 years. T. C. MAXWELL & BROS.

Geneva, Ontario Co., N. Y., August 1, 1859.

GRAPES, CURRANTS, AND ALL SMALL FRUITS.—The following Grapes, grown in open ground, (not forced in pots,) at the lowest prices they are offered by any Nursery.

HARDY NATIVES.—August Coral, Diana, Logan, Rebecca, Concord, Hartford Prolific, White and Amber and Mammoth Catawba, Clinton, Early and White and Wright's Isabella, York Madeira, Norton's Virginia, Husmann, Alexander, Taylor's White, Ontario, Wilmington White, St. Catharine, Allen's 4 Hybrids, Shurtleff, Warren, Herbemont, Lenoir, Missouri, Anna, Brinckle, Clara, Emily, Garrigues, Perkins, Raabe, To Kalon, Union Village, Venango, Marion, Marion Port, Hyde's Eliza *true,* Louisa, Mary Ann, Franklin, Cassady Lincoln, Monteith, Northern Muscadine, Elsinbourgh, Manhattan, Crevelling, Scuppernong 4 varieties. Los Angelos 5 varieties. Kansas 4 varieties. Guignard, Early Amber, Camak, Godman, Shepherd, Bland *true,* Saluda, Ozark, Ohio Prolific, Albino, Hensels Early, Offer, Early Hudson, White Shonga, White Transparent, North America, Empire, Post Oak, Longworth's and Imperial Catawba, Winslow and others, as priced in Descriptive Catalogue.

FOREIGN GRAPES.—Delaware (Swiss) erroneously called Native, Canadian Chief, Child's Superb, and all the Chasselas, Muscat and Hamburgh varieties, Bowwood Muscat, Champion Hamburgh, Golden Hamburgh, Lady Downes, Madeira Muscat, Muscat Fleur d'Orange, Sultanine, Trentham Black, White Morocco, Muscat St. Laurent, Muscat de Saisbelle, Marchioness of Hastings, Geren Madeira, Early Black Hamburgh, Muscat Ottonel, &c

CURRANTS.—Cherry, Caucase, Versaillaise, Hative de Bertin, Fertile Palluau, Imperial, White Provence largest of all, White Grape, Victoria, and 25 others.

RASPBERRIES.—Merveille Red and White Monthly, Antwerp 6 varieties, Ingles's Perpetual, Allen, Catawissa, & all others.

BLACKBERRIES.—New Rochelle, Dorchester, Imperial, Orange, Kentucky White, Newman's, Chrystal White, Mulberry, &c.

GOOSEBERRIES.—50 finest English varieties, & 6 Houghton Native Varieties.

RHUBARB.—Linnæus, Prince Albert, Victoria and others.

PREMIUM STRAWBERRIES.—142 varieties, see advertisement in last month's Agriculturist.

For Catalogues of any Department of Nursery Stock, apply by mail to WM. R. PRINCE & CO., Flushing, N. Y.

☞ *See our 3 other Advertisements in this number*

Dutch Bulbous Roots.

Just published our Fall Catalogue of BULBS, containing our usual extensive assortment of
HYACINTH,
TULIPS,
LILIES,
CROCUS,
NARCISSUS,
CROWN IMPERIALS, &c., &c.

Also choice assortments of the above for from $1 to $10 each made up. Catalogues mailed on application
J. M. THORBURN & CO., Seed Warehouse,
15 John-st., New-York.

STOCKS, STOCKS, STOCKS, Seedlings and Trees.

Angers Quince, Mazzard Cherry, Apple 1 and 2 year, Pear, Plum, Manetti Rose Stocks, young Evergreens of Norway Spruce, Hemlock, Bal. Fir, Red Cedar, White Pine, Mahonia.
Roses—A large and choice collection of Hybrid Perpetuals, Bourbon, Noisett e. Tea, Climbing, Moss, at low figures.
Also, a large stock of Fruit and Ornamental Trees.
Grape Vines of Delaware, Concord, Rebecca, Hartford Prolific, Diana, with the older sorts.
Bulbous Roots, Strawberry Plants, &c., &c.
Catalogues sent on application by enclosing stamp.
W. T. & E. SMITH, Geneva Nursery, Geneva, N. Y.

R. F. NICHOLS, New-Orleans,
Importer of fine Cattle, and Wholesale Agent for several Fruit and Flower Nurseries.
Consignments and orders solicited.

Tree and Fruit Seeds.

MEEHAN'S Fall List of near 250 Kinds is now ready.
Other Catalogues of his great variety of Trees, Rare Plants, and general Nursery Stock, gratis. Postage on each 1 cent.
GERMANTOWN NURSERIES, Pa.

IMPORTED WHITE MEDITERRANEAN WHEAT, of a superior quality. Also, Soule's white, and red Mediterranean.
SEED RYE.
GRASS SEED.—Timothy, Red Top, Agrostis, Stolonifers, Blue, Orchard, Sweet Vernal, Hungarian, &c.
CLOVERS of all kinds.
A large assortment of all kinds GARDEN, FIELD, FRUIT and FLOWER SEEDS, for sale by R. L. ALLEN,
191 Water st., New-York.

RUSSIA OR BASS MATS, SELECTED expressly for budding and tying, GUNNY BAGS, TWINES, HAY ROPES, &c., suitable for Nursery purposes, for sale in lots to suit by D. W. MANWARING, Importer,
248 Front Street, New York.

Bags of every description for

FLOUR, GRAIN, SALT, &c., &c.
Plain, or printed from new and beautiful designs.
PAPER BAGS from 1 to 14 lbs, for Grocers' and Druggists' use, 1 lb. $1.20 per 1000; 7 lbs. $2.50 per 1000.
GUNNY BAGS, extra size, 13 cents.
MANILLA and JUTE ROPE, Hay Rope, Bed Cords, &c., at the lowest manufactory prices.
M VANDERHOOF,
No 171 West-st., New-York.
25 lb. Flour Sacks $50 per 1000—51 lbs $70
Sheeting Feed Bags 10½ to 14 cents—Osnaburgh 14½ to 20c.

PATENT TURN-TABLE APPLE PARER.

This Machine is on an entirely new principle. It has no snapping or reverse motion, is made of iron, and not liable to get out of order, is so simple in construction that children with sufficient strength to place an apple on the fork and turn a crank, can operate it as readily as adults. It has no superior for paring crooked, uneven, hard or soft apples of any size or shape. Quinces are pared as readily as apples. The success of the parer the past two years, has established the fact that it is the best machine ever invented. Every machine is warranted to give satisfaction. The proprietors are determined to make a perfect machine, the work being done under their immediate supervision, and will be sold at reasonable prices.

A supply of these machines can be obtained at the Agricultural and Hardware dealers in most of the principal cities, or of the manufacturers.

Call for the "Patent Turn-Table Apple Parer."
LOCKEY & HOWLAND,
Proprietors and Manufacturers,
July 15, 1859. Leominster, Mass.

CARBON ILLUMINATING OIL Is not a Coal Oil,

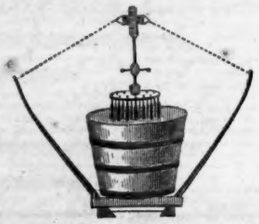
But is for burning in Coal Oil Lamps, and is made by distillation of pure Petroleum, a liquid Mineral Oil, obtained from a boring 450 feet deep, in the Alleghany Mountains, near Pittsburg, and makes a

PERFECT AND SMOKELESS OIL.

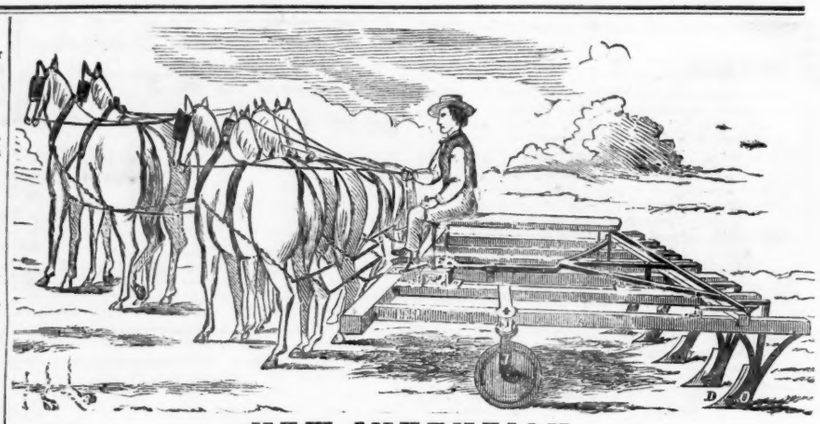
☞ It is not explosive; and is entirely free from unpleasant odor!
☞ Burns a high flame, without smoke or crust!!
☞ Is a bright clear straw color, and will not change!!!
☞ Will burn as long as the best coal oil!!!!

And is guaranteed to be the BEST OIL EVER USED in a Coal Oil Lamp; and if, on trial, it should not be found in all respects, as stated, the money will be returned to the purchaser.
For sale at Carbon Oil Co.'s Depot, 191 Pearl-st., New-York.

Metropolitan Washing Machine.



Can be worked by a child—will save its cost in the wear and tear of clothes in a short time. After using three times you would not part with it for three times its cost. For sale by
R. L. ALLEN, 191 Water-st.



NEW INVENTION.

JOSEPH SUTTER'S

PATENT GANG PLOUGH.

The undersigned begs to call the attention of farmers, and persons interested in agriculture to his improved Gang Plough. This plough can be made with from 2 to 6, and more shares, and is capable of ploughing from 4 to 20 acres per day, doing the work of 2 to 8 single ploughs, and requiring only the attendance of one man. The saving of TIME and LABOR, and the excellent work it does are the principal features of this plough, which, compared with the single plough, makes it one of the GREATEST IMPROVEMENTS OF THE AGE.

The plough rests in front on wheels, placed in a line, parallel with the line of shares. On the top of the plough is a long seat for the driver, running parallel with the same, near which the mechanism is attached to work the shares, so as to lead the same in and out of the ground and to regulate the position of the shares to cut the required depth of furrows.

Every kind and description of shares can be used and applied to this gang plough, the same by single ploughs.

This plough has gone through several trials already, and executed its work to the general satisfaction, in evidence of which I am permitted to use the following certificates from some of the most respectable practical farmers.

No farmer will dispute the great advantages of an early seed, which is always preferable, and with this plough every man will be enabled to do his work in the shortest time possible, and at much less expense.

We, the undersigned, hereby testify that we have seen Mr. Joseph Sutter's Gang Plough, witnessed the execution of its work, and think the principle of it to be the best of all which have ever came to our notice. We also think it to be a great acquisition to farmers. The saving of labor is its main feature, and we think it has come up to all anticipations of a combined plough. It does its work well, and saves the labor of several hands:

C. SANDERS, St. Louis Fruit Farm.
PH. TCHWERCKRS, St. Louis County, Mo.
PETIT J PIERRE, St. Louis County, Mo.
N. THUR, St. Louis County, Mo
C. C. McCLURE, St. Louis County, Mo.
L. W SMALLWOOD, County Clerk, Lafayette County, Mo.
R. FISHER, Montgomery County, Mo.
BERNARD BRECERMAN, Montgomery County, Mo.
J. BATS, St. Louis County, Mo.
ISAAC CHANSLOR, Lafayette County, Mo.
GEO. A. A. RIGGS.
WILLIAM ROW.
WILLIAM CLOWDSLEY.

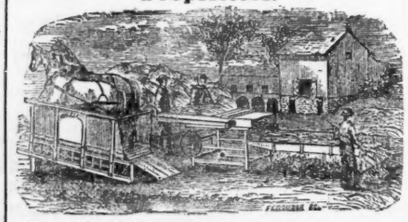
A model of my improved plough can be seen and examined at the Patent Office of HENRY E. ROEDER, 346 Broadway, New-York, who will give every explanation about the same, and about the prices and conditions for which the PATENT RIGHTS for the different States or Counties, can be bought.

JOSEPH SUTTER, Patentee.

PLOWS, CAST IRON AND STEEL, for every variety of use. Harrows, Cultivators, Hay and Stalk Cutters, Grain Mills, Sugar Mills, Churns, Pumps, Sausage Cutters and Fillers, Fan Mills, Corn Shellers, Horse Hoes, Weeders, &c. Carts, Waggons, Wheel Barrows, Store Trucks, Road Scrapers, Horse Powers, Threshers, Cotton Gins, Field and Garden Rollers, Saw Machines, Hay Presses, Ox Yokes, Vegetable Cutters, &c., &c., in great variety, of most approved patterns, and at very lowest price that articles of similar quality are or can be furnished. R. L. ALLEN, 191 Water-st.

TO FARMERS.

The great Agricultural warehouse
No. 54 Vesey-street,
New-York,
A. F. MAYHER & Co.,
Proprietors.



We would call the attention of ALL WHO HAVE GRAIN TO THRESH to our stock of *Horse Powers* and *Threshers* and *Combined Threshers* and *Winnowers*. WE HAVE THE SOLE AGENCY IN NEW-YORK of several different patent improved Horse Powers and Threshing Machines, and can furnish any kind that may be wanted. We keep a greater variety in store than can be found in the City, elsewhere, altogether—of both the Tread and Lever Powers. Also, both Overshot and Undershot Threshing Machines, with or without Separators or Shakers, as desired. If you think of buying a Threshing Machine or Horse Power, or Agricultural Implements or Machinery of any kind, you will find it to your interest to call on us before purchasing elsewhere.

Remember the AGRICULTURAL WAREHOUSE and SEED STORE No. 54 Vesey-st., near Greenwich-st., New-York.
A. F. MAYHER & CO.

N. B.—If not convenient to call on us, send for a Circular describing the machines and giving prices.

ALBANY TILE WORKS, Corner Clinton-avenue and Knox-st., Albany, N. Y.—The subscribers, being the most extensive manufacturers of
DRAINING TILE
in the United States, have on hand, in large or small quantities, for Land Draining, Round, Sole and Horse Shoe Tile, warranted superior to any made in this country, hard-burned, and over one foot in length.
Orders solicited.
Price list sent on application
C. & W. McCAMMON,
Albany, N. Y.

HAY AND STALK CUTTERS.—CORN SHELLERS, FAN MILLS, in great variety.
R. L. ALLEN, 191 Water-st.

BYRAM'S POTATO DIGGER—We have improved this implement so that it is easily converted into a *Double Mold-Board Plow*, which makes it the most useful implement in use. As a *Potato Digger* it has no equal.
Price of Combined Machine $8.
Manufactured and sold by
GRIFFING BROTHER & CO.,
60 Cortlandt-st., New-York City.

POTATO PLOW.—MY POTATO PLOW has been greatly improved, and is recommended as far superior to any other in use—it will dig as fast as thirty hands can pick up—it can be arranged to work on all kinds of soil
Price $10. R. L. ALLEN, 191 Water-st.

ALL KINDS OF AGRICULTURAL AND HORTICULTURAL IMPLEMENTS, Guano, Bone Dust, Superphosphates of Lime, Plaster, &c., &c
Grass, Field, and Garden Seeds, all warranted as represented. Please give us a call. A. F. MAYHER & CO.,
Agricultural and Seed Store, No. 54 Vesey st., New York,
Between Broadway and Greenwich-street.
Remember No. 54 Vesey street.

"GRIFFING'S" EXCELSIOR FAN MILL will clean 60 bushels per hour. All who use it acknowledge it the best fanning mill in use.
Price $25. Manufactured for and sold by
GRIFFING, BROTHER & CO.,
60 Courtlandt-street, New-York.

HAY PRESSES.—A VERY SUPERIOR ARTICLE
R. L. ALLEN, 191 Water-st.

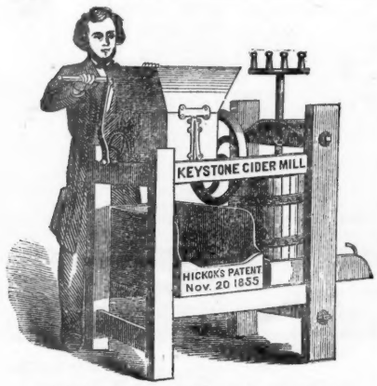
American Pump.

This Pump, patented April 5th, 1859, is a double acting force pump, without chains, pulleys, packing, suction, or guide rods; simple, cheap, durable; raises from 5 to 60 gallons per minute; forces water up inclined planes to great elevations with unexampled ease—either by hand, wind, water, or steam; peculiarly adapted to cisterns, wells, railroads, engines, &c.; will not RUST OR FREEZE, and warranted to GIVE SATISFACTION. Drawings and prices sent free.
JAMES M. EDNEY,
No. 147 Chambers-st., New-York.

HORSE POWERS, THRESHERS, Saw Machines, with Saw,
"Hickok's" Cider Mills and Presses,
Fanning Mills,
Dog Powers, Churns, &c.
A large assortment on hand at lowest market prices, at
NORTH RIVER AGRICULTURAL WAREHOUSE,
60 Cortlandt-street, New-York.

HORSE POWER.—TAPLIN'S IMPROVED CIRCULAR, one to six Horse. I am now making with wood or iron rim, as preferred. Are the lightest running, simplest, least liable to get out of repair, and most satisfactory Circular Horse Power in use. Also, ALLEN'S ENDLESS CHAIN, one or two horse power, strongly and well made, and works with the greatest ease to the team. Also Bogardus', Hall's, Pitt's, Wheeler's, Emery's, and other powers.
Threshers and Threshers and Cleaners of the most approved pattern. R. L. ALLEN, 191 Water-st.

THERMOMETERS, BAROMETERS, &c., of reliable quality and various descriptions, among which are those particularly suited for Horticultural purposes, which register the coldest and warmest degree of temperature during the 24 hours, in the absence of the observer. For sale by D. EGGERT & SON, 239 Pearl st.



HICKOK'S PATENT PORTABLE

Cider and Wine Mill and Press.

This sterling machine, which from the test of several years has proved itself superior in point of simplicity and efficiency to anything in the market, is now ready for the apple harvest of 1859.

It is made if possible better than ever, and where there are no agents, farmers will do well to send to the manufactory early for a circular. We also make large iron press screws from 3-inch diameter and 4 feet long, to 6-inch diameter and 8 feet long, at reasonable prices. Address

W. O. HICKOK, Eagle Works,
Harrisburgh, Pa.

HICKOK'S CIDER MILL AND PRESS, with all the latest improvements, sold by GRIFFING, BRO. & CO., 60 Cortlandt-st., New-York.

CIDER MILLS AND PRESSES.—WINE PRESSES. Cider Screws, of various best patterns. Horse Radish Graters
Root Cutters, Apple Parers, Corers and Slicers.
R. L. ALLEN, 191 Water-st

Ingersoll's Patent Hay Press.

Now is the time to buy these truly valuable machines. More than 500 of them have been sold in the last two years. Price $50 and $75, delivered in New-York. Warranted to give satisfaction. For circulars, containing full information. Address

FARMERS' MANUFACTURING CO.,
Green Point P. O., (Brooklyn,) N. Y.

A New Corn Planter.

J. H. WIGGINS, Esq., formerly of Boston, now a Virginia Planter, obtained in 1858 letters patent for a Double, Reciprocating Corn Planter. This Planter was exhibited at the U. S. Agricultural Fair at Richmond, in the Fall of 1858, and obtained the first premium over several others that were in competition with it. The machine is admirably adapted to the purpose of planting corn, or other seeds, required to be in rows and hills. It plants two rows at a time, at any desired distance, and marks the line of a third. It also drops any fertilizer, as guano, ashes, plaster, or superphosphate, either on the seed, or at such distance from it, as the person using it judges best. It covers the seed and fertilizer at any desired depth, and presses the soil over them more or less hardly as its condition at the time, whether wet or dry, heavy or light, requires. In short, it is the most perfect machine yet invented for the purpose of planting and manuring at one operation; and with a nimble span of horses will easily plant and manure thirty acres a day, and do the work better than it can be done by hand.

Mr. Wiggins having betaken himself to an Eastern-Shore Plantation in Virginia, has left the disposal of rights to manufacture and use this machine with the subscriber, who now offers them to the public either for the whole Union, or for single States. Enterprising mechanics will do well to enquire, as the machine has so manifest advantages over all others, that it cannot fail of coming into general use, as soon as known. The Patentee's right is unquestionable. Perfect titles will be given by him. Address J. A. NASH, 55 Sands st.,
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IRON FINGER NAILS
For Husking Corn.

GOULD'S PATENT HUSKING THIMBLE is an effectual remedy for the excoriations common to husking corn by hand.—*Scientific American.*

We are in possession of more than 200,000 letters from farmers in high standing (in all parts of the United States,) equally as flattering as the following. *Read them* ye who have corn to husk, or wish to engage in the sale of good inventions:

J. H. GOULD & CO.—Sirs: I send inclosed one dollar for six pairs of your Patent Husking Thumbles. I used a pair last year, and I prefer them to all the great, small, or Little Giant Corn Huskers. Yours truly, A. H BELL,
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Tiro, Crawford Co., Ohio, Nov. 8, 1858.

PRICES.

We send by mail, free of postage, to any P. O. address, six pairs of Husking thimbles, assorted sizes, directions for using, circular, &c., for $1; Circulars for one stamp. Fifty pairs by express for $5. Wholesale prices made known to applicants. *Agents wanted.* Address J. H. GOULD & CO.,
Alliance, Ohio.

MT. UNION, Ohio, July 19, 1858.

To the Public.—This certifies that I am personally acquainted with J. H. Gould, of Alliance Ohio; and feel free to state for the benefit of those whom it may concern, that he is of a good business character, able, honorable, and reliable. I would also state that his Invention, (the Husking Thimble,) stands very high in the estimation of agriculturists in this vicinity.

This Implement will doubtless bear the scrutiny of science and the practical operations for which it is designed.

Very respectfully, Prof. O. N. HARTSHORN,
Pres. Mt. Union College

Sale of Short Horn Cattle, &c.

I will offer for sale, at public auction, on THURSDAY, October 13, 1859, my herd of Durham Short Horn Cattle, and some pure Southdown Sheep. These cattle are Select Herd Book Stock, being choice animals reserved at my former sale and their produce. The herd consists of

ELEVEN BULLS AND SEVENTEEN COWS AND HEIFERS.

Catalogues of the Cattle and their Pedigrees may be had by application to me at White Hall Post Office, Madison Co, Ky.

TERMS OF SALE.—Six months credit; negotiable notes, with approved security, payable at Northern Branch Bank, at Richmond, Ky. C. M. CLAY,
White Hall, Madison Co., Ky.

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About to discontinue the raising of Stock, I will sell my entire establishment—Stallions vary in age from 8 years old to 3 months—Among them are, "Young Trustee," and "Trojan." also, "Seth Warner," "Sontag's" 2-year old colt by "Ethan Allen," (bred with more speed than any young stallion living.) The brood mares are equal to any in this country, and are all bred to "Toronto Chief."

Among the Stock are a few fillies and driving horses.

"Toronto Chief" and "Sontag," (in foal by him,) I will not sell until a majority of the stock are disposed of. Address

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P. S.—Most of the Stock are now on the farm a Flushing.

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I have always on hand for sale, which will be put upon the railroad cars and sent carefully by Adams' Express to purchasers, SHORT-HORN CATTLE, SOUTH-DOWN SHEEP, and SPANISH HOGS. C. M. CLAY.
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WM. J. PETTEE. Lakeville, Ct.

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Cor. CLINTON-AV. and KNOX-ST., ALBANY, N. Y.

The subscribers, being the most extensive manufacturers of DRAINING TILE in the United States, have on hand, in large or small quantities, for Land Draining, ROUND, SOLE, and HORSE-SHOE TILE, warranted superior to any made in this country, hard-burned, and over one foot in length. Orders solicited. Price List sent on application.
C. & W. McCAMMON, Albany, N. Y.

NOW IS THE TIME TO COMMENCE IT.

A Good Business.

DANIEL'S PATENT GRANULAR FUEL is the growth of swamp lands, waste trimmings of trees, &c., cut into small lengths (4 inches or thereabouts) with

DANIEL'S PATENT FUEL CUTTER

This material, which for centuries has been regarded as *worthless*, makes the BEST KINDLING MATERIAL IN THE WORLD. IT HAS, wherever introduced, SUPERSEDED THE USE OF CHARCOAL, or split pine wood for kindling fires. Being cheaper, cleaner, and far more convenient. ITS AVERAGE COST to manufacturers IS LESS THAN THREE CENTS A BUSHEL. It brings readily 10 and 12½ cents per bushel. Certificates without number from the most respectable sources, show that two bushels of Granular Fuel will go as far as three of charcoal." "That there are no disadvantages attendant on its use, on the contrary, much time and labor saved," also certificates from the various manufacturers, testifying "to a steady increase of sales, amounting from 50 to 100 per cent per annum." Attention is called to the following certificate. For circulars containing further facts and particulars, and for rights for territory unsold, address B. D. WASHBURN,
Taunton, Mass., Proprietor.

From George W. Chapin, Esq., Treasurer of Atlantic Delaine Mills, Providence, R. I.

DEAR SIR: Respecting the Granular Fuel, before purchasing the right for this State, I made a thorough examination of the whole matter, and satisfied myself wherever it has been introduced, it has been favorably received, and found superior to charcoal for kindling, and much more economical. The unanimity of expression in its favor actually surprised me.

Very truly, GEO. W CHAPIN.
SEEKONK, June 4, 1859.

DEAR SIR: In relation to the manufacturing of Daniel's Patent Granular Fuel, I would say that I find no difficulty in procuring Brush suitable for 2 cents a bushel. I have now 30,000 bushels on hand, which was delivered at that price. I have cut one thousand bushels per day with the Patent Fuel Cutter. I find that in tracts of wood land, yielding 15 to 20 cords to the acre, 1,500 to 2,000 bushels of Granular Fuel can be obtained from the waste trimmings, (*valueless* to the farmer.)

Yours truly, RAYMOND H. BURR.
WORCESTER, Mass., July 4, 1859.

DEAR SIR: Daniel's Patent Granular Fuel is liked in this city much better than charcoal, and in no one instance, where it has been used, have the parties, to our knowledge, failed to call for it again. The machine is in every respect perfect, and is capable of cutting one thousand bushels per day, with proper power, say a two-horse treadmill power, and two men to feed it. This Spring we have erected a building one hundred feet long by 27 feet wide to store our supplies, and shall, without doubt, sell this year 150,000 bushels of Granular Fuel. Under this conviction we have contracted for that amount. It is very important to have the material cut between the seasons of October and May. Yours, respectfully,
W. & S. C. LANE.
NEW-YORK, July 8, 1859.

DEAR SIR: During the month of May last I visited Weymouth, Braintree, Worcester, Millbury, New-Bedford and Fairhaven, and examined in the Granular Fuel Business, and from conversations with many disinterested men, I did not hear a single opinion dissenting from the general one of the great superiority of this Fuel over charcoal or pine wood, and I have not the slightest hesitation in expressing my belief that wherever introduced, it must receive the preference of either of these articles, and all the manufacturers agree as to the business being eminently profitable, at prices with which those articles cannot compete. Yours truly, D. McKENSIE.

Parties purchasing State and County Rights have repeatedly sold a portion of their territory for a large per cent over the cost of the whole; Rights invariably advancing in neighboring counties from 3 to 400 per cent, after the business has been started.

For Territory unsold throughout the United States, address
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Keep your Feet Dry
AND
Preserve your Health.

The long sought for principle of making leather perfectly water-proof, without injuring it, has at last been discovered.

A. BROWER'S PATENT WATER PROOF COMPOSITION FOR LEATHER,

makes Boots, Shoes, Hose, Harness and all Leather perfectly impervious to water by a single application, and warranted to keep so, at the same time it softens, makes the leather pliable, prevents cracking, will polish with blacking better than before, and leather will last at least one-fourth to one-third longer by using it. For sale by A. BROWER & CO., 4 Reade-st., and by all the principal Boot and Shoe, Hardware, Drug and Grocery and Yankee Notion houses. A liberal discount to agents.

N. B. None genuine unless signed by A. BROWER.

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OR
CONCENTRATED POTASH.

A new article for making Soap, warranted to make Soap without Lime, and with but little trouble. One pound will make 12 gallons of good strong Soft Soap. Manufactured and put up in 1, 2, and 4 lb. cans, (in small lumps,) at the CHALLENGE CHEMICAL WORKS, New-York.

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ALSO,

PURE POTASH

in 6 lb. cans, in lumps, for sale as above.

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We would call the attention of Guano Dealers, Planters, and Farmers to the article which we have on hand and for sale at

THIRTY PER CENT LESS THAN PERUVIAN GUANO

and which we claim to be superior to any Guano or fertilizer ever imported or manufactured in this country. This Guano is imported by WM. H WEBB, of New-York, from Jarvis' & Bakers' Islands, in the "South Pacific Ocean," and is sold genuine and pure as imported. It has been satisfactorily tested by many of our prominent Farmers, and analyzed by the most eminent and popular Agricultural Chemists, and found to contain (as will be seen by our circulars) a large per centage of *Bone Phosphate of Lime and Phosphoric Acid*, and other animal organic matter, yielding ammonia sufficient to produce immediate abundant crops, besides substantially enriching the soil. It can be freely used without danger of burning the seed or plant by coming in contact with it, as is the case with some other fertilizers; retaining a great degree of moisture, it causes the plant to grow in a healthy condition, and as experience has proved, *free of insects*. For orders in any quantity, (which will be promptly attended to,) or pamphlets containing full particulars of analyses and tests of farmers, apply to

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SUPERPHOSPHATE OF LIME,
BONE DUST,
FISH GUANO.

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GEO. W. ATWOOD *Secretary*, No 16 Cedar-street, N. Y.

Dried Blood and Wool Manure.

A new and valuable Fertilizer, containing a large proportion of nitrogenous matter. Price $30 per ton, in barrels containing 200 lbs. No charge for package. Also, Peruvian and American Guano, Bone Dust, Phosphates, Plaster, &c.

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SAWINGS, TURNINGS AND CRUSHED BONES,

for sale by the manufacturers, in large or small quantities.

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CAMPAIGN OF 1860.

SECOND GUN.

Heavily loaded, and ready to be fired at any one furnishing the *tin*-der. For the kind of loading see *Premium List* on page 314.

"A BAKER'S DOZEN."

All *new* subscribers to the *American Agriculturist*, for 1860, (Vol. XIX,) received during this month, (October,) will be presented with the November and December numbers of this year *free*, as all new subscribers received during the rest of this year, from whatever source, will be put down paid from date of receiption to the end of 1860. Those coming in *this* month will therefore get a "Baker's Dozen," or fourteen numbers for the price of twelve. Subscribers from the Pacific Coast, and other distant points will have due allowance made after Nov. 1st, for the extra time required for their letters to reach us. The extra numbers thus offered for this year will be valuable ones, and worth a little timely effort on the part of canvassers and the subscribers themselves.

Glance at the Premiums.

We invite special attention to the large list of premiums offered on page 314. These are peculiar. In most cases such premiums are offered for competition, and only one person can get a particular premium; and there is always an uncertainty as to whether some unknown person may not be better circumstanced to get a higher list, and a frequent suspicion also that favoritism may be in some way shown. Our premiums are absolute, depending only upon a given number of names, and every one knows just what he or she is aiming at. These premiums are really commissions offered to canvassers for time expended in exhibiting the paper to those not acquainted with it. With the single exception of one of our old office clerks, Mr. Whitman, we employ no agents. Every person so disposed can act as a voluntary agent among acquaintances, and receive as compensation the articles offered in our premium list. The past year over 700 persons have earned and received valuable premiums from this office, which have cost them no money, and comparatively little outlay of time. We shall be happy to have the number doubled this year, for although no profit is derived the first year from new subscribers when these premiums are given, yet the sphere of the *Agriculturist* is extended, and sufficient renumeration will come by and by. We expect to make the paper *good enough* to retain the patronage of all its readers, and in the end to derive a living profit, which is all we desire.

"What Is the Circulation of the American Agriculturist?"

The number of subscribers has constantly gone upward from the day we first obtained full proprietorship until the present time, so that it is now greater than ever before. Some interest has been manifested to know what is the *bona fide* circulation, and efforts have been made in some quarters to depreciate the amount. We propose to set all queries and surmises at rest, by the statement below which will not be questioned. Let us premise that: 1st, we seldom send out gratuitous copies; 2d, that having stereotype plates on hand to print from, we only print each month what is actually required; and 3d, we count full thousands, (not two reams of 480 sheets to the 1000 as is usually done); our paper is manufactured expressly for us and put up at the mills in reams of 500 sheets (not 480).

Steam Press Rooms, 16 & 18 Jacob-st., New-York, September 16th. 1859.

This is to certify that, by request of the proprietor, Mr. O. Judd, I have this day examined my books, and find that during the past *twelve months*, I have printed of regular copies of the *American Agriculturist*, **2,166** Reams of 500 sheets each (1,083,000), or an average of **180 1-2** Reams per month. As each copy contains two sheets, this is an average of **Forty-five thousand one hundred and twenty-five (45,125)** perfect copies per month JOHN A. GRAY.

Affirmed (sworn) to before me, this 16th day of September, 1859. J. O. HARGER, Commissioner of Deeds.

This certifies that we have manufactured the paper for the *American Agriculturist* during the past year, and our account of paper furnished to Mr. O Judd, corresponds with the above statement of Mr. Gray.

SEYMOUR & CO., 95 John-st., New-York.

NOTE.—[To give a fair showing of the past business of this journal, we have exhibited the circulation for a whole year, and not that of the present or any past single issue. It would be an easy matter to make out a much larger show by getting up an extra edition for some advertiser, and publishing the circulation of one number only. Thus, owing to our increased circulation, and to the demand from "baker's dozen" subscribers, etc., we shall print not less than 75,000 to 80,000 of our very next number (Nov.), but those figures would not give a fair exhibit of the past regular business. Judging from the past, and from present indications, we confidently calculate upon a regular edition hereafter of 70,000 to 80,000, and anticipate even more.

Owing to the prevalent opinion that newspapers generally have not half of their reputed circulation, we think it would be policy for every journal having a respectable circulation to set forth an attested statement of their actual business. Especially would we be glad to see this done by the Agricultural press, whose circulation and influence is not properly appreciated.

Business Notices.

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American Agriculturist, Dec, 1858.

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American Agriculturist.

(ISSUED IN BOTH ENGLISH AND GERMAN.)

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Ten or more copies one year....80 cents each.

An extra copy to the person sending 15 or more names, at 80 cents each.

☞In addition to the above rates: Postage to Canada 6 cents, to England and France 24 cents, to Germany 24 cents, and to Russia 72 cents *per annum*. Delivery in New-York city and Brooklyn, 12 cents a year.

Postage anywhere in the United States and Territories must be paid by the subscriber, and is *only six cents a year*, if paid in advance at the office where received.

The paper is considered *paid* for whenever it is sent, and will be promptly discontinued when the time for which it is ordered expires.

All business and other communications should be addressed to the Editor and Proprietor,

ORANGE JUDD,
No. 189 Water st, New-York.